

Chapter 16.18

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PURPOSE AND GENERAL PROVISIONS

16.18A.010 Purpose

The purposes of this chapter are to:

1. Preserve the City's important environmental features while allowing development to occur if compatible with and in consideration of these critical areas;
2. Avoid impacts to critical areas and preserve the functions of critical areas. In appropriate circumstances, impacts to specified critical areas resulting from regulated activities may be minimized, rectified, reduced, and/or compensated for, consistent with the requirements of this chapter;
3. Avoid wetland impacts and achieve a goal of no net loss of wetland function, value, and acreage; and where possible enhance and restore wetlands;
4. Protect critical aquifer recharge areas by avoiding land use activities that pose potential contamination, and minimize impacts to recharge areas through the application of strict performance standards;
5. Avoid and minimize potential impacts to life and property from geologic hazards such that sites are rendered as safe as one not containing such hazard through appropriate levels of study and analysis, application of sound engineering principles, and regulation or limitation of land uses;
6. Achieve no net loss of core preservation areas within fish and wildlife habitat conservation areas, and minimize impact to and retain character of quality habitat areas, and protect species of concern, priority species, and species of local importance;
7. Achieve the following goals by limiting development and alteration of critical areas:
 - a. Protect members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, or flooding;
 - b. Protect unique, fragile, and valuable elements of the environment, including ground and surface waters, wetlands, and fish and wildlife and their habitats;
 - c. Direct activities not specifically dependent on critical area resources to less ecologically sensitive sites, and mitigate unavoidable impacts to critical areas by regulating alterations in and adjacent to critical areas; and
 - d. Prevent cumulative adverse environmental impacts to water quality, wetlands, and fish and wildlife habitat, and the overall net loss of area and function of wetlands, and fish and wildlife habitat conservation areas.

8. Provide standards, guidelines, and criteria to guide application of these critical areas goals and policies when considered with other goals and policies of the Algona Municipal Code (AMC), including those pertaining to natural features and environmental protection; Serve as a basis for exercise of the City's substantive authority under the State Environmental Policy Act (SEPA) and the City's SEPA rules; Protect critical areas in accordance with the Growth Management Act and through the application of best available science, as determined according to WAC 365-195-900 through 365-195-925, and in consultation with state and federal agencies and other qualified professionals; and Coordinate environmental review and permitting of proposals to avoid duplication and delay. This chapter is to be administered with flexibility and attention to site-specific characteristics. It is not the intent of this chapter to make a parcel of property unusable by denying its owner reasonable economic use of the property or to prevent the provision of public facilities and services necessary to support existing development and planned for by this community without decreasing current service levels below minimum standards.¹
9. The city's enactment or enforcement of this chapter shall not be construed for the benefit of any individual person or group of persons other than the general public.

16.18A.020 Findings

The City finds that:

1. Algona contains certain areas that can be identified and characterized as environmentally sensitive or critical. Such areas within the City include wetlands, fish and wildlife habitat conservation areas, critical aquifer recharge areas, geologically hazardous areas, and the associated buffers of each of those types of critical areas.
2. Past growth patterns have in some cases contributed to natural disasters which threaten public health and safety, and that by preventing development on certain critical areas, the City can better maintain public health, safety and welfare. In addition, by preserving features that provide for clean water, fisheries, and wildlife, the City can help maintain a positive ecological balance that provides for the immediate and long-term public welfare.
3. Critical areas perform a variety of valuable and beneficial biological and physical functions that benefit the City and its residents. Some types of critical areas may also pose a threat to human safety or to public and private property. The functions of critical areas include the following:
 - a. Wetlands. Wetlands are fragile ecosystems which serve a number of important beneficial functions. Wetlands assist in the reduction of erosion, siltation, flooding, ground and surface water pollution, and provide wildlife, plant, and fisheries habitats. Destruction and impairment of wetlands may result in increased public and private

¹ See RCW 36.70A.020(12).

costs or property losses. Wetland buffers serve to moderate runoff volume and flow rates; reduce sediment, chemical nutrient and toxic pollutants; provide shading to maintain desirable water temperatures; provide habitat for wildlife; protect wetland resources from harmful intrusion; and generally preserve the ecological integrity of the wetland area.

- b. Fish and Wildlife Habitat Conservation Areas. Wildlife areas are ecosystems composed of unique interacting systems of soils, geology, topography, and plant and animal communities. They consist of land-based areas and aquatic areas. Wildlife habitat provides opportunities for food, cover, nesting, breeding, and movement for fish and wildlife within the City; maintains and promotes diversity of species and habitat within the City; helps to maintain air and water quality; controls erosion; serves as areas for recreation, education and scientific study, and aesthetic appreciation; and provides neighborhood separation and visual diversity within urban areas. Riparian corridors are essential for wild fish populations. Healthy riparian zones are dynamic ecosystems that perform various functions that help create healthy aquatic habitats. Some of the major functions include: producing and delivering large and small woody debris to shorelines and stream channels; shoreline protection and habitat formation; removing sediments and dissolved chemicals from water; moderating water temperature; providing favorable microclimate; providing habitat for terrestrial animals; and providing proper nutrient sources for aquatic life. Additionally, aquatic areas and their associated buffers store and convey stormwater and floodwater; recharge groundwater; and serve as areas for recreation, education and scientific study and aesthetic appreciation. The City's overall goal shall be no net loss of riparian corridor functions and values.

- c. Critical Aquifer Recharge Areas. Potable water is an essential life-sustaining element. Aquifer recharge areas provide a source of potable water and contribute to stream discharge during periods of low flow. Certain portions of the City's planning area are susceptible to contamination of drinking water and watercourse supplies through rapid infiltration of pollutants through the soil to ground water aquifers. Wellhead Protection Zones 1, 2, and 3 are designated as critical aquifer recharge areas under the provisions of the Growth Management Act, RCW Chapter 36.70A, and are established based on proximity to and travel time of groundwater to the City's public water source wells.

- d. Geologically Hazardous Areas. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible commercial, residential, or industrial development is sited in or near areas of significant hazard. Some geological hazards can be reduced or mitigated by engineering, design, or modified

construction so that risks to health and safety are acceptable. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas should be avoided.

4. Identification, regulation, and protection of critical areas are necessary to protect the public health, safety, and general welfare.
5. This section of the AMC contains standards, guidelines, criteria, and requirements intended to identify, analyze, preserve, and mitigate potential impacts to the City's critical areas and to enhance and restore degraded resources, such as wetlands, riparian stream corridors, or habitat, where possible.

16.18A.030 Authority

- A. The Mayor or his/her designee is given the authority to interpret and apply this chapter, and has the responsibility to enforce this chapter to accomplish the stated purposes.
- B. The City may withhold, condition, or deny development permits or activity approvals to ensure that the proposed action is consistent with this chapter.

16.18A.040 Definitions

Active Fault - A fault that is considered likely to undergo renewed movement (typically caused by an earthquake) within a period of concern to humans. Faults are commonly considered to be active if movement and/or evidence of seismic habitat have been observed one or more times in the last 10,000 years.

Adaptive Management - Adaptive management relies on scientific methods to evaluate how well regulatory and non-regulatory actions protect a critical area. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. With regard to critical areas mitigation, adaptive management requires the modification of a mitigation plan when monitoring data indicates that performance standards are not being met; thus, these modifications should increase the potential for standards to be met at the end of the monitoring period.

Adjacent - Immediately adjoining (in contact with the boundary of the influence area) or within a distance that is less than needed to separate activities from critical areas to ensure protection of the functions and values of the critical areas. "Adjacent" shall mean any activity or development located:

- A. On a site immediately adjoining a critical area;

- B. A distance equal to or less than the required critical area buffer width and building setback;
- C. A distance equal to or less than one-half mile (2,640 feet) from a bald eagle nest²;
- D. A distance equal to or less than three hundred (300) feet upland from a stream, wetland, or water body³;
- E. Bordering or within the floodway, floodplain, or channel migration zone; or
- F. A distance equal to or less than two hundred (200) feet from a critical aquifer recharge area⁴.

Advance Mitigation - Mitigation of an anticipated critical area impact or hazard constructed/installed according to an approved critical area report/plan and prior to the occurrence of the critical area impact.

Agricultural Land - Land primarily devoted to the commercial production of horticultural, viticultural, silvicultural, floricultural, dairy, apiary, or animal products; or of berries, grain, hay, straw, turf, or seed; or Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140; or livestock; and/or that land which has been designated as long-term commercial significance for agricultural production.

Alteration - Any human-induced change in an existing condition of a critical area or its buffer. Alterations include, but are not limited to grading, filling, channelizing, dredging, clearing (vegetation), construction, compaction, excavation, or any other activity that changes the character or function of the critical area.

Anadromous Fish - Fish that spawn and rear in freshwater and mature in the marine environment. While Pacific salmon die after their first spawning, steelhead and bull trout can spawn repeatedly, returning to the marine environment between each spawning event.

Applicant - A person who files an application for permit under this chapter and who is either the owner of the land on which that proposed activity would be located, a contract purchaser, or the authorized agent of such a person.

² Distance of 2,640 feet is based on the Washington Department of Fish and Wildlife's *Management Recommendations for Washington's Priority Species, Volume IV: Birds, 2000*.

³ Distance of 300 feet is based on maximum recommended riparian habitat area width from the Washington Department of Fish and Wildlife's *Management Recommendations for Washington's Priority Habitats: Riparian, 1997*.

⁴ Distance of 200 feet is a suggested distance to ensure that activities within the critical aquifer recharge area are included under this Chapter, even when the exact boundaries of the critical aquifer recharge area are not known at the time of application.

Aquifer - A geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

Aquifer, Confined - An aquifer bounded above and below by beds of distinctly lower permeability than that of the aquifer itself and that contains ground water under sufficient pressure for the water to rise above the top of the aquifer.

Aquifer Recharge Areas - Areas that, due to the presence of certain soils, geology, and surface water, act to recharge ground water by percolation.

Aquifer, Sole Source - An area designated by the U.S. Environmental Protection Agency under the Safe Drinking Water Act of 1974, Section 1424(e). The aquifer(s) must supply fifty percent (50%) or more of the drinking water for an area without a sufficient replacement available.

Aquifer Susceptibility - The ease with which contaminants can move from the land surface to the aquifer based solely on the types of surface and subsurface materials in the area. Susceptibility usually defines the rate at which a contaminant will reach an aquifer unimpeded by chemical interactions with the vadose zone media.

Aquifer, Unconfirmed - An aquifer not bounded above by a bed of distinctly lower permeability than that of the aquifer itself and containing ground water under pressure approximately equal to that of the atmosphere. This term is synonymous with the term "water table aquifer".

Area of Shallow Flooding - An area designated AO or AH Zone on the FEMA flood insurance map(s). The base flood depths range from one (1) to three (3) feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized and sheet flow and AH indicates ponding.

Base Flood - A flood event having a once percent (1%) chance of being equaled or exceeded in any given year, also referred to as the 100-year flood. Designations of base flood areas on FEMA flood insurance map(s) always include the letters A or V.

Basement - Any area of the building having its floor below ground level on all sides.

Best Available Science - Current scientific information used in the process to designate, protect, or restore critical areas, which is derived from a valid scientific process as defined by WAC 365-195-900 through 365-195-925. Examples of best available science are included in *Citations of Recommended Sources of Best Available Science for Designating and Protecting Critical Areas* published by the Washington State Department of Commerce.

Best Management Practices (BMPs) - Conservation practices or systems of practices and management measures that:

- A. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, and sediment;
- B. Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands and fish and wildlife habitat conservation areas;
- C. Protect trees, vegetation, and soils designated to be retained during and following site construction and use of native plant species appropriate to the site for re-vegetation of disturbed areas; and
- D. Provide standards for proper use of chemical herbicides within and adjacent to critical areas.

The City shall monitor the application of best management practices to ensure that the standards and policies of this chapter are adhered to.

Biodiversity - The variety of animal and plant life and its ecological processes and interconnections – represented by the richness of ecological systems and the life that depends on them, including human life and economics.

Bog – A low-nutrient, acidic wetland with organic soils and characteristic bog plants, which is sensitive to disturbance and impossible to re-create through compensatory mitigation.

Breakaway Wall - A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion for the building or supporting foundation systems.

Buffer or Buffer Zone - An area that is contiguous to and protects a critical area and which is required for the continued maintenance, functioning, and/or structural stability of a critical area.

Channel Migration Zone. The area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings.

Compensation Project - Actions necessary to replace project-induced critical area and buffer losses, including land acquisition, planning, construction plans, monitoring, and contingency actions.

Compensatory Mitigation - Replacing project-induced losses or impacts to a wetland or fish and wildlife habitat conservation area. Mitigation includes but is not limited to: restoration, creation, enhancement, and preservation.

Conservation Easement - A legal agreement that the property owner enters into to restrict uses of the land. Such restrictions can include, but are not limited to, passive recreation uses such as trails or scientific uses and fences or other barriers to protect habitat. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property, therefore, providing permanent and long-term protection.

Creation – The manipulation of the physical, chemical, or biological characteristics to develop a wetland on an upland or deep-water site, where a wetland did not previously exist. Creation results in a gain in wetland acreage and function. A typical action is the excavation of upland soils to elevations that will produce a wetland *hydroperiod* and hydric soils, and support the growth of hydrophytic plant species.

Critical Aquifer Recharge Area - Areas designated by WAC 365-190-080(2) that are determined to have a critical aquifer recharging effect on aquifers use for potable water as defined by WAC 365-190-030(2).

Critical Areas - Critical areas include any of the following areas or ecosystems: wetlands, fish and wildlife habitat conservation areas, critical aquifer recharge areas, and geologically hazardous areas, as defined in RCW 36.70A and this chapter.

Critical Area Tract - Land held in private ownership and retained in an undeveloped condition in perpetuity for the protection of critical areas. Lands with this type of dedication may include, but are not limited to, portions and combinations of forest habitats, grasslands, wetlands, fish and wildlife habitat conservation areas, 100-year floodplains, shorelines or shorelines of statewide significance, and riparian areas.

Critical Facility - A facility for which even a slight chance of flooding, inundation, or impact from a hazard event might be too great. Critical facilities include, but are not limited to, schools, nursing homes, hospitals, police, fire and emergency response installations, and installations that produce, use, or store hazardous materials or hazardous waste.

Critical Species – All animal and plant species listed by the state or federal government as threatened or endangered.

Critical Habitat – Habitat designated by state or federal government as critical for recovery of listed threatened or endangered species

Cumulative Impacts or Effects – The combined, incremental effects of past, present and reasonably foreseeable future human activity on ecological or critical areas functions and values. Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. It is the combination of these effects, and any resulting cumulative environmental degradation, that should be the focus of cumulative impact analysis and changes to policies and permitting decisions.

Developable Area – A site or portion of a site that may be used as the location of development, in accordance with the rules of this chapter.

Development –A land use consisting of the construction or exterior alteration of structures; grading, dredging, drilling, or dumping; filling; removal of sand, gravel, or minerals; bulk heading; driving of pilings; or any project of a temporary or permanent nature which modifies structures, land, or shorelines and which does not fall within the allowable exemptions contained in the City Code.

Development Permit – Any permit issued by the city, or other authorized agency, for construction, land use, or the alteration of land.

Elevated Building – A building that has no basement and its lowest elevated floor is raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

Emergent Wetland – A wetland with at least thirty percent (30%) of the surface area covered by erect, rooted, herbaceous vegetation extending above the water surface as the uppermost vegetative strata.

Enhancement – The manipulation of the physical, chemical, or biological characteristics of a wetland to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention, or wildlife habitat. Enhancement results in a change in wetland function(s) and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. Examples are planting vegetation, controlling non-native or invasive species, and modifying site elevations to alter hydroperiods.

Erosion – The process whereby wind, rain, water, and other natural agents mobilize and transport particles.

Erosion Hazard Areas – At least those areas identified by the U.S. Department of Agriculture National Resources Conservation Service as having a “severe” rill and inter-rill erosion hazard.

Exotic – Any species of plants or animals, which are foreign to the planning area.

Fish and Wildlife Habitat Conservation Areas – Areas necessary for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created (WAC 365-190-130). These areas include:

- A. Areas where endangered, threatened, and sensitive species have a primary association;
- B. Habitats and species of local importance, including but not limited to areas designated as priority habitat by the Washington Department of Fish and Wildlife;
- C. Commercial and recreational shellfish areas;
- D. Kelp and eelgrass beds;
- E. Herring, smelt, and other forage fish spawning areas;
- F. Naturally occurring ponds under twenty (20) acres and their submerged aquatic beds that provide fish or wildlife habitat. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were intentionally created for mitigation.
- G. Waters of the state, including lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington;
- H. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
- I. State natural area preserves, natural resource conservation areas, and state wildlife areas; and
- J. Land essential for preserving connections between larger habitat blocks and open spaces.

Fish Habitat – Habitat that is used by any type of fish at any life stage at any time of the year, including potential habitat likely to be used by fish that could be recovered by restoration or management and includes off-channel habitat.⁵

Flood or Flooding – A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation of runoff of surface waters from any source.

Flood Insurance Map – The official map on which the Federal Insurance Administration has delineated the areas of special flood hazards and include the risk premium zones applicable to the community. Also known as “flood insurance rate map” or “FIRM.”

Flood Insurance Study – The official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

Floodplain – The total land area adjoining a river, stream, watercourse, or lake subject to inundation by the base flood.

Flood Protection Elevation – The elevation that is one (1) foot above the base flood elevation.

Flood Resistant Material – Materials designed to be resistant to the impacts associated with flooding and defined and described in detail in the Federal Emergency Management Agency’s Technical Bulletin #2-93, 1993 and FEMA publication FEMA-348, *Protecting Building Utilities from Flood Damage*.

Floodway – The channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the surface water elevation more than one (1) foot. Also known as the "zero rise floodway."

Forested Wetland – A wetland with at least thirty percent (30%) of the surface area covered by woody vegetation greater than twenty (20) feet in height that is at least partially rooted within the wetland.

Formation – An assemblage of earth materials grouped together into a unit that is convenient for description or mapping.

Formation, Confining – The relatively impermeable formation immediately overlying a confined aquifer.

⁵ See WAC 222-16-030(5)(h)

Functions and Values – The services provided by critical areas to society, including, but not limited to, improving and maintaining water quality; providing fish and wildlife habitat; supporting terrestrial and aquatic food chains; reducing flooding and erosive flows; attenuating waves; providing historical or archaeological importance, educational opportunities, and recreation. Critical area functions can be used to help set targets (species composition, structure, etc.) for managed areas, including compensatory mitigation sites.

Geologically Hazardous Areas – Areas that may not be suited to development consistent with public health, safety, or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geological events as designated by WAC 365-190-080(4). Types of geologically hazardous areas include: erosion, landslide, seismic, mine, and volcanic hazards.

Ground Water – Water in a saturated zone or stratum beneath the surface of land or a surface water body.

Ground Water Management Area – A specific geographic area or subarea designated pursuant to WAC 173-100, for which a ground water management program is required.

Ground Water Management Program – A comprehensive program designed to protect ground water quality, to ensure ground water quantity, and to provide for efficient management of water resources while recognizing existing ground water rights and meeting future needs consistent with local and state objectives, policies, and authorities within a designated ground water management area or subarea and developed pursuant to WAC 173-100.

Ground Water, Perched – Ground water in a saturated zone is separated from the underlying main body of ground water by an unsaturated rock zone.

Growth Management Act – RCW 36.70A and 36.70B, as amended.

Habitats of Local Importance – These areas include a seasonal range or habitat element with which a given species has a primary association, and which, if altered may reduce the likelihood that the species will maintain and reproduce over the long-term. These might include areas of high relative density or species richness, breeding or roosting habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alterations such as cliffs, talus, and wetlands. (WAC 365-190-030)

Hazard Areas – Areas designated as frequently flooded areas or geologically hazardous areas due to potential for erosion, landslide, seismic activity, mine collapse, or other geological condition.

Hazardous Substances – Any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-090 or 173-303-100, or as hereinafter amended.

High Intensity Land Use – Land uses which are associated with high levels of human disturbance or substantial habitat impacts including, but not limited to, medium- and high-density residential (more than one home per five acres), multifamily residential, some agricultural practices, and commercial and industrial land uses.

High Quality Wetlands – Those wetlands that meet the following criteria:

- A. No, or isolated, human alteration of the wetland topography;
- B. No human-caused alteration of the hydrology or the wetland appears to have recovered from the alteration;
- C. Low cover and frequency of exotic plant species;
- D. Relatively little human-related disturbance of the native vegetation, or recovery from past disturbance;
- E. If the wetland is partially degraded, it still contains a viable and high quality area that supports a native wetland plant community; and
- F. No known major water quality problems.

Historic Condition – Condition of the land, including flora, fauna, soil, topography, and hydrology that existed before the area and vicinity were developed or altered by Euro-American settlement, or in some cases before any human habitation occurred.

Hydraulic Project Approval (HPA) – A permit issued by the Washington Department of Fish and Wildlife for modifications to waters of the state in accordance with RCW 75.20 or hereinafter amended.

Hydric Soil – A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The presence of hydric soil shall be determined following the methods described in the approved federal wetland delineation manual and applicable regional supplements.

Hydrologic Soil Groups – Soils grouped according to their runoff-producing characteristics under similar storm and cover conditions. Properties that influence runoff potential are depth to seasonally high water table, intake rate and permeability after prolonged wetting, and depth to a low permeable layer. Hydrologic soil groups are normally used in equations that estimate runoff from rainfall, but can be used to estimate a rate of water transmission in soil. There are four hydrologic soil groups:

Low Runoff potential and a high rate of infiltration potential;

Moderate Infiltration potential and a moderate rate of runoff potential;

Slow Infiltration potential and a moderate to high rate of runoff potential; and

High Runoff potential and very slow infiltration and water transmission rates.

Hydrophytic Vegetation – The sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produces permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. Hydrophytic vegetation is present when the plant community is dominated by species that require or can tolerate prolonged inundation or soil saturation during the growing season. The presence of hydrophytic vegetation shall be determined following the methods described in the described in the approved federal wetland delineation manual and applicable regional supplements.

Hyporheic Zone – The saturated zone located beneath and adjacent to streams that contains some portion of surface waters, serves as a filter for nutrients, and maintains water quality.

Impervious Surface – Any alterations to the surface of a soil that prevents or retards the entry of water into it compared to its undisturbed condition, or any reductions in infiltration that cause water to run off the surface in greater quantities or at an increased rate of flow compared to that present prior to development. Common impervious surfaces include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of stormwater.

In-Kind Compensation – To replace critical areas with substitute areas whose characteristics and functions closely approximate those destroyed or degraded by a regulated activity. It does not mean replacement "in-category."

Infiltration – The downward entry of water into the immediate surface of soil.

Injection Well(s)

- A. Class I – A well-used to inject industrial, commercial, or municipal waste fluids beneath the lowermost formation containing, within one quarter (1/4) mile of the well bore, an underground source of drinking water.
- B. Class II – A well-used to inject fluids:
 - 1. Brought to the surface in connection with conventional oil or natural gas exploration or production and may be commingled with wastewaters from gas plants that are an integral part of production operations, unless those waters are classified as dangerous wastes at the time of injection;
 - 2. For enhanced recovery of oil or natural gas; or
 - 3. For storage of hydrocarbons that are liquid at standard temperature and pressure.
- C. Class III – A well-used for extraction of minerals, including but not limited to the injection of fluids for:
 - 1. In-situ production of uranium or other metals that have not been conventionally mined;
 - 2. Mining of sulfur by Frasch process; or
 - 3. Solution mining of salts or potash.
- D. Class IV – A well-used to inject dangerous or radioactive waste fluids.
- E. Class V – All injection wells not included in Classes I, II, III, or IV.

In-Lieu-Fee Program – An agreement between a regulatory agency (state, federal, or local) and a single sponsor, generally a public agency or non-profit organization. Under an in-lieu-fee agreement, the mitigation sponsor collects funds from an individual or a number of individuals who are required to conduct compensatory mitigation required under a wetland regulatory program. The sponsor may use the funds pooled from multiple permittees to create one or a number of sites under the authority of the agreement to satisfy the permittees' required mitigation.

Infiltration – The downward entry of water into the immediate surface of soil.

Inter-Rill – Areas subject to sheet wash.

Joint Aquatic Resource Permits Application (JARPA) – A single application form that may be used to apply for hydraulic project approvals, shoreline management permits, approvals of exceedance of water quality standards, water quality certifications, coast guard bridge permits,

Washington State Department of Natural Resources use authorization, and U.S. Army Corps of Engineers permits.

Lahars – Mudflows and debris flows originating from the slopes of a volcano.

Land Use, High Intensity – See “High Intensity Land Use.”

Land Use, Low Intensity – See “Low Intensity Land Use.”

Land Use, Moderate Intensity – See “Moderate Intensity Land Use.”

Landslide Hazard Areas – Areas that are potentially subject to risk of mass movement due to a combination of geologic landslide resulting from a combination of geologic, topographic, and hydrologic factors. These areas are typically susceptible to landslides because of a combination of factors including: bedrock, soil, slope gradient, slope aspect, geologic structure, ground water, or other factors.

Low Intensity Land Use – Land uses which are associated with low levels of human disturbance or low habitat impacts, including, but not limited to, passive recreation, open space, or forest management land uses.

Lowest Floor – The lowest floor of the lowest enclosed area, including the basement. An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building’s lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable requirements of this chapter.

Manufactured Home – A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term “manufactured home” does not include a “recreational vehicle.”

Manufactured Home Park or Subdivision – A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Mature Forested Wetland – A wetland where at least one acre of the wetland surface is covered by woody vegetation greater than 20 feet in height with a crown cover of at least 30 percent and where at least 8 trees/acre are 80 to 200 years old OR have average diameters (dbh) exceeding 21 inches (53 centimeters) measured from the uphill side of the tree trunk at 4.5 feet up from the ground.

Mitigation – Avoiding, minimizing, or compensating for adverse critical areas impacts. Mitigation, in the following sequential order of preference, is:

1. Avoiding the impact altogether by not taking a certain action or parts of an action;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
3. Rectifying the impact to wetlands, critical aquifer recharge areas, and habitat conservation areas by repairing, rehabilitating, or restoring the affected environment to the conditions existing at the time of the initiation of the project;
4. Minimizing or eliminating a hazard by restoring or stabilizing the hazard area through engineered or other methods;
5. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;
6. Compensating for the impact to wetlands, critical aquifer recharge areas, and habitat conservation areas by replacing, enhancing, or providing substitute resources or environments; and
7. Monitoring the hazard or other required mitigation and taking remedial action when necessary.

Mitigation for individual actions may include a combination of the above measures.

Moderate Intensity Land Use – Land uses which are associated with moderate levels of human disturbance or substantial habitat impacts including, but not limited to, low-density residential (no more than one home per five acres), active recreation, and moderate agricultural land uses.

Monitoring – Evaluating the impacts of development proposals on the biological, hydrological, and geological elements of such systems, and assessing the performance of required mitigation measures throughout the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features. Monitoring includes gathering baseline data.

Native Vegetation – Plant species that occur naturally in a particular region or environment and were not introduced by human activities.

Native Growth Protection Area (NGPA) – An area where native vegetation is preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering, and protecting plants and animal habitat;

Natural Waters – Waters, excluding water conveyance systems that are artificially constructed and actively maintained for irrigation.⁶

Non-conformity – A legally established existing use or legally constructed structure that is not in compliance with current regulations.

Non-indigenous – See “Exotic.”

Off-Site Compensation – To replace critical areas away from the site on which a critical area has been impacted.

On-site Compensation – To replace critical areas at or adjacent to the site on which a critical areas has been impacted.

Ordinary High Water Mark (OHWM) – That mark which is found by examining the bed and banks of waterbodies and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, that the soil has a character distinct from that of the abutting upland in respect to vegetation.

Out-of-Kind Compensation – To replace critical areas with substitute critical areas whose characteristics do not closely approximate those destroyed or degraded. It does not refer to replacement "out-of-category."

Perched Ground Water – See “Ground Water, Perched.”

Permeability – The capacity of an aquifer or confining bed to transmit water. It is a property of the aquifer or confining bed and is independent of the force causing movement.

Porous Soil Types – Soils, as identified by the National Resources Conservation Service, U.S. Department of Agriculture, that contain voids, pores, interstices, or other openings which allow the passing of water.

Potable Water – Water that is safe and palatable for human use.

⁶ See WAC 222-16-030(5)(d) and WAC 222-16-031(6)(d).

Practical Alternative – An alternative that is available and capable of being carried out after taking into consideration cost, existing technology, and logistics in light of overall project purposes, and has less impacts to critical areas.

Primary Association Area – The area used on a regular basis by, is in close association with, or is necessary for the proper functioning of the habitat of a critical species. Regular basis means that the habitat area is normally, or usually known to contain a critical species, or based on known habitat requirements of the species, the area is likely to contain the critical species. Regular basis is species and population dependent. Species that exist in low numbers may be present infrequently yet rely on certain habitat types.

Prior Converted Croplands – Prior converted croplands (PCCs) are defined in federal law as wetlands that were drained, dredged, filled, leveled, or otherwise manipulated, including the removal of woody vegetation, before December 23, 1985, to enable production of an agricultural commodity, and that: 1) have had an agricultural commodity planted or produced at least once prior to December 23, 1985; 2) do not have standing water for more than 14 consecutive days during the growing season, and 3) have not since been abandoned.

Priority Habitat – Habitat type or elements with unique or significant value to one or more species as classified by the state Department of Fish and Wildlife. A priority habitat may consist of a unique or rare vegetation type or dominant plant species, a described successional stage, or a specific structural element.

Project Area – All areas, including those within fifty (50) feet of the area, proposed to be disturbed, altered, or used by the proposed activity or the construction of any proposed structures. When the action binds the land, such as a subdivision, short subdivision, binding site plan, planned unit development, or rezone, the project area shall include the entire parcel(s), at a minimum.

Qualified Professional – A person with experience and training in the pertinent scientific discipline, and who is a qualified scientific expert with expertise appropriate for the relevant critical area subject in accordance with WAC 365-195-905. A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology, or related field, and have at least five years of related work experience.

1. A qualified professional for wetlands must be a professional wetland scientist with at least two years of full-time work experience as a wetlands professional,

including delineating wetlands using the federal manuals and supplements, preparing wetlands reports, conducting function assessments, and developing and implementing mitigation plans.

2. A qualified professional for fish and wildlife habitat conservation areas must have a degree in biology or a related degree and professional experience related to the subject species.
3. A qualified professional for critical aquifer recharge areas means a hydrogeologist, geologist, engineer, or other scientist with experience in preparing hydrogeologic assessments.
4. A qualified professional for a geological hazard must be a professional engineer or geologist, licensed in the state of Washington.

Recharge – The process involved in the absorption and addition of water to ground water.

Reclaimed Water – Municipal wastewater effluent that has been adequately and reliability treated so that it is suitable for beneficial use. Following treatment it is no longer considered wastewater (treatment levels and water quality requirements are given in the water reclamation and reuse standards adopted by the state departments of Ecology and Health).

Re-establishment – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Re-establishment results in rebuilding a former wetland and results in a gain in wetland acres and functions. Activities could include removing fill, plugging ditches, or breaking drain tiles.

Rehabilitation – The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions and processes of a degraded wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres. Activities could involve breaching a dike to reconnect wetlands to a floodplain or returning tidal influence to a wetland.

Repair or Maintenance – An activity that restores the character, scope, size, and design of a serviceable area, structure, or land use to its previously authorized and undamaged condition. Activities that change the character, size, or scope of a project beyond the original design and drain, dredge, fill, flood, or otherwise alter critical areas are not included in this definition.

Restoration – Measures taken to restore an altered or damaged natural feature including:

1. Active steps taken to restore damaged wetlands, streams, protected habitat, or their buffers to the functioning condition that existed prior to an unauthorized alteration; and
2. Actions performed to reestablish structural and functional characteristics of the critical area that have been lost by alteration, past management activities, or catastrophic events.

Rills – Steep-sided channels resulting from accelerated erosion. A rill is generally a few inches deep and not wide enough to be an obstacle to farm machinery. Rill erosion tends to occur on slopes, particularly steep slopes with poor vegetative cover.

Riparian Habitat – Areas adjacent to aquatic systems with flowing water that contain elements of both aquatic and terrestrial ecosystems that mutually influence each other. The width of these areas extends to that portion of the terrestrial landscape that directly influences the aquatic ecosystem by providing shade, fine or large woody material, nutrients, organic and inorganic debris, terrestrial insects, or habitat for riparian-associated wildlife. Widths shall be measured from the ordinary high water mark (OHWM) or from the top of bank if the OHWM cannot be identified. It includes the entire extent of the floodplain and the extent of vegetation adapted to wet conditions (e.g., as found in wetlands), as well as adjacent upland plant communities that directly influence the stream system. Riparian habitat areas include those riparian areas severely altered or damaged due to human development activities.

Riparian Habitat Water Type 1: All waters, within their ordinary high-water mark but not including those waters' associated wetlands as defined in chapter [90.58](#) RCW.

Riparian Habitat Water Type 2: Segments of natural waters which are not classified as Type 1 Water and have a high fish, wildlife, or human use. (See WAC 222-16-031 for further details and limitations)

Riparian Habitat Water Type 3: Segments of natural waters which are not classified as Type 1 or 2 Waters and have a moderate to slight fish, wildlife, or human use. These are segments of natural waters and periodically inundated areas of their associated wetlands (See WAC 222-16-031 for further details and limitations)

Riparian Habitat Water Type 4: All segments of natural waters within the bankfull width of defined channels that are perennial non-fish habitat streams. (See WAC 222-16-031 for further details and limitations)

Riparian Habitat Water Type 5: All segments of natural waters within the bankfull width of the defined channels that are not Type 1, 2, 3, or 4 Waters. . (See WAC 222-16-031 for further details and limitations)

River – See “Watercourse.”

Scientific Process – A valid scientific process is one that produces reliable information useful in understanding the consequences of a decision. The characteristics of a valid scientific process are as follows:

1. Peer Review. The information has been critically reviewed by other qualified scientific experts in that scientific discipline.
2. Methods. The methods that were used are standardized in the pertinent scientific discipline or the methods have been appropriately peer-reviewed to ensure their reliability and validity.
3. Logical Conclusions and Reasonable Inferences. The conclusions presented are based on reasonable assumptions supported by other studies and are logically and reasonably derived from the assumptions and supported by the data presented.
4. Quantitative Analysis. The data have been analyzed using appropriate statistical or quantitative methods.
5. Context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge.
6. References. The assumptions, techniques, and conclusions are well referenced with citations to pertinent existing information.

Scrub-Shrub Wetland – A wetland with at least thirty percent (30%) of its surface area covered by woody vegetation less than twenty (20) feet in height as the uppermost strata.

Section 404 Permit – A permit issued by the US Army Corps of Engineers for the placement of dredge or fill material in or the excavation of material from waters of the United States, including wetlands, in accordance with 33 USC § 1344.

Seep – A place where water oozes from the earth, often acting as the source of a small stream.

Seismic Hazard Areas – Areas that are subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction.

SEPA – Washington State Environmental Policy Act, RCW 43.21C.

Serviceable – Presently usable.

Significant Portion of its Range – That portion of a species range likely to be essential to the long-term survival of the population in Washington.

Significant Tree – A healthy evergreen tree, six inches or more in diameter measured four feet above grade, or a healthy deciduous tree four inches or more in diameter measured four feet above grade. Alders and cottonwoods are excluded from this definition.

Soil Survey – The most recent soil survey for the local area or county by the National Resources Conservation Service, US Department of Agriculture.

Special Flood Hazard Areas – The land in the floodplain within an area subject to a one percent (1%) or greater chance of flooding in any given year. Designations of special flood hazard areas on flood insurance map(s) always include the letters A or V.

Special Protection Areas – Aquifer recharge areas defined by WAC 173-200-090 that require special consideration or increased protection because of unique characteristics, including, but not limited to:

1. Ground waters that support an ecological system requiring more stringent criteria than drinking water standards;
2. Ground water recharge areas and wellhead protection areas that are vulnerable to pollution because of hydrogeologic characteristics; and
3. Sole source aquifer status.

Sole Source Aquifer – See “Aquifer, Sole Source.”

Species – Any group of animals, plants, fungi, etc. classified as a species or subspecies as commonly accepted by the scientific community.

Species, Endangered – Any species native to the state of Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state (WAC 232-12-297, Section 2.4).

Species of Local Importance – Those species of local concern designated by the City in Section 16.18C.010 due to their population status or their sensitivity to habitat manipulation.

Species, Priority – Any species requiring protective measures and/or management guidelines to ensure its persistence at genetically viable population levels as classified by the Washington

Department of Fish and Wildlife, including endangered, threatened, sensitive, candidate and monitor species; and those of recreational, commercial, or tribal importance.

Species, Threatened – Any wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats (WAC 232-12-297, Section 2.5).

Stream – An area where open surface water produces a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial watercourses, unless they are used by salmonids or are used to convey a watercourse naturally occurring prior to construction. A channel or bed need not contain water year-round, provided there is evidence of at least intermittent flow during years of normal rainfall. See also “Watercourse.”

Sub-drainage Basin or Subbasin – The drainage area of the highest order stream containing the subject property impact area. Stream order is the term used to define the position of a stream in the hierarchy of tributaries in the watershed. The smallest streams are the highest order (first order) tributaries. These are the upper watershed streams and have no tributaries of their own. When two first order streams meet, they form a second order stream, and when two second order streams meet they become a third order stream, and so on.

Substantial Damage – Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.

Substantial Improvement – Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either: before the improvement or repair is started; or if the structure has been damaged and is being restored, before the damage occurred.

Unavoidable Impacts – Adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

Volcanic Hazard Areas – Areas that are subject to pyroclastic flows, lava flows, debris avalanche, or inundation by debris flows, mudflows, or related flooding resulting from volcanic activity.

Vulnerability – The combined effect of susceptibility to contamination and the presence of potential contaminants.

Washington Administration Code (WAC) – Administrative guidelines implementing the Growth Management Act, WAC 365-190 and WAC 365-195, as amended.

Water Dependent – A use or portion of a use that can exist only in a location that is adjacent to the water, and is dependent on the water by reason of the intrinsic nature of its operations. A use that can be carried out only on, in, or adjacent to water. Examples of water dependent uses include: ship cargo terminal loading areas; fishing; ferry and passenger terminals; barge loading, ship building, and dry docking facilities; marinas, moorage, and boat launching facilities; aquaculture; float plane operations; surface water intake; and sanitary sewer and storm drain outfalls.

Water Resource Inventory Area (WRIA) – One of sixty-two (62) watersheds in the state of Washington, each composed of the drainage areas of a stream or streams, as established in WAC 173-500 as it existed on January 1, 1997.

Water Table – That surface in an unconfined aquifer at which the pressure is atmospheric. It is defined by the levels at which water stands in wells that penetrate the aquifer just far enough to hold standing water.

Water Table Aquifer – See “Aquifer, Unconfined.”

Water Typing System- A system used to classify streams, lakes, and ponds relative to their physical and biological features, as per the Interim Water Typing System established in WAC 222-16-031 and as defined in 222-16-030.

Watercourse – Any portion of a channel, bed, bank, or bottom waterward of the ordinary high water mark of waters of the state including areas in which fish may spawn, reside, or through which they may pass, and tributary waters with defined beds or banks, which influence the quality of fish habitat downstream. This definition includes watercourses that flow on an intermittent basis or which fluctuate in level during the year and applies to the entire bed of such watercourse whether or not the water is at peak level. This definition does not include irrigation ditches, canals, stormwater run-off devices, or other entirely artificial watercourses, except where they exist in a natural watercourse that has been altered by humans.

Well – A bored, drilled, or driven shaft, or a dug hole whose depth is greater than the largest surface dimension for the purpose of withdrawing or injecting water or other liquids.

Wellhead Protection Area (WHPA) – The portion of a zone of contribution for a well, wellfield, or spring, as defined using criteria established by the Washington State Department of Ecology.

Wetlands – Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions. Wetlands generally include lands referred to as swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands. Identification of wetlands and delineation of their boundaries shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplements.

Wetland Edge – The boundary of a wetland as delineated in accordance with the approved federal wetland delineation manual and applicable regional supplements.

Wetland Mitigation Bank – A site approved by all appropriate local, state, and federal agencies where wetlands are restored, created, enhanced, or, in exceptional circumstances, preserved expressly for the purpose of providing advance mitigation for future, permitted impacts to similar resources.

Wetland Mosaic – An area with a concentration of multiple small wetlands, in which each patch of wetland is less than one acre; on average, patches are less than one hundred (100) feet from each other; and areas delineated as vegetated wetland are more than 50% of the total area of the entire mosaic, including uplands and open water.

Zone of Contribution – The area surrounding a well or spring that encompasses all areas or features that supply ground water recharge to the well or spring.

16.18A.050 Relationship to Other Regulations

- A. These critical areas regulations apply as an overlay and in addition to zoning and other regulations adopted by the City.
- B. Any individual critical area adjoined by another type of critical area shall have the buffer and meet the requirements that provide the most protection to the critical areas involved. When

any provision of this chapter or any existing regulation, easement, covenant, or deed restriction conflicts with this chapter, that which provides more protection to the critical area shall apply.

- C. Compliance with the provisions of this chapter does not constitute compliance with other federal, state and local regulations and permit requirements that may be required (for example, Hydraulic Permit Approvals (HPA) permit, Section 106 of the National Historic Preservation Act, U.S. Army Corps of Engineers Section 404 permits, National Pollution Discharge Elimination Systems (NPDES) permits). The applicant is responsible for complying with all applicable federal, state and local regulations and permit requirements.

16.18A.060 Administrative Procedures

The administrative procedures followed during the critical area review process shall conform to the standards and requirements of the city development regulations. This shall include, but not be limited to, timing, appeals, and fees associated with applications covered by this chapter.

16.18A.070 Fees

- A. The fees for critical area review processing, and other services provided by the City as required by this chapter are listed in Chapter AMC 2.50. These fees shall be based on the anticipated sum of direct costs incurred by the city for any individual development or action and may be established as a sliding scale that will recover all of the city costs including enforcement of these code provisions. Basis for these fees shall include, but not be limited to, the cost for engineering and planning review time, cost of inspection time, costs for administration, and any other special costs attributable to the critical area review process.
- B. Unless otherwise indicated in this chapter, the applicant is responsible for the initiation, preparation, submission, and expense of all required reports, assessment(s), studies, plans, reconnaissance(s), peer review(s) by qualified consultants, and other work prepared in support of or necessary to review the application.

16.18A.080 Severability

If any clause, sentence, paragraph, section, or part of this chapter or the application thereof to any person or circumstances shall be judged by any court of competent jurisdiction to be invalid, such order or judgment shall be confined in its operation to the controversy in which it was rendered. The decision shall not affect or invalidate the remainder of any part thereof and to

this end the provisions of each clause, sentence, paragraph, section, or part of this law are hereby declared to be severable.

16.18A.090 Administrative Rules

Applicable departments within the City are authorized to adopt such administrative rules and regulations as necessary and appropriate to implement this chapter and to prepare and require the use of such forms as necessary for its administration.

16.18A.100 Interpretation

In the interpretation and application of this ordinance, the provisions of this chapter shall be considered to be the minimum requirements necessary, shall be liberally construed to serve the purpose of this ordinance, and shall be deemed to neither limit nor repeal any other provisions under state statute.

16.18A.110 Jurisdiction – Critical Areas

- A. The City shall regulate all uses, activities, and developments within, adjacent to, or likely to affect, one or more critical areas, consistent with the best available science and provisions herein.
- B. All areas within the City meeting the definition of one or more critical areas, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this chapter.
- C. The City shall regulate all uses within 500 feet of, or that are likely to affect, one or more critical areas, consistent with the best available science and the provisions herein.

16.18A.120 Protection of Critical Areas

Any action taken pursuant to this chapter shall result in equivalent or greater functions and values of the critical areas associated with the proposed action, as determined by the best available science. All actions and developments shall be designed and constructed in accordance with *Mitigation Sequencing* [Section 16.18A.250] to avoid, minimize, and restore all adverse impacts. Applicants must first demonstrate an inability to avoid or reduce impacts, before restoration and compensation of impacts may be allowed. No activity or use shall be allowed that results in a net loss of the area, functions, or values of critical areas.

16.18A.125 Best Available Science

A. Protect Functions and Values of Critical Areas with Special Consideration to Anadromous Fish.

Critical area reports and decisions to alter critical areas shall rely on the best available science to protect the functions and values of critical areas and must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish, such as salmon, steelhead, and bull trout, and their habitat.

B. Best Available Science to be Consistent with Criteria. The best available science is that scientific information applicable to the critical area prepared by local, state or federal natural resource agencies, a qualified scientific professional, or team of qualified scientific professionals that is consistent with the criteria established in WAC 365-195-900 through WAC 365-195-925.

C. Characteristics of a Valid Scientific Process. In the context of critical areas protection, a valid scientific process is one that produces reliable information useful in understanding the consequences of a local government's regulatory decisions, and in developing critical areas policies and development regulations that will be effective in protecting the functions and values of critical areas. To determine whether information received during the permit review process is reliable scientific information, the Mayor or his/her designee shall determine whether the source of the information displays the characteristics of a valid scientific process. Such characteristics are as follows:

1. **Peer Review.** The information has been critically reviewed by other persons who are qualified scientific experts in that scientific discipline. The proponents of the information have addressed the criticism of the peer reviewers. Publication in a referenced scientific journal usually indicates that the information has been appropriately peer-reviewed;
2. **Methods.** The methods used to obtain the information are clearly stated and reproducible. The methods are standardized in the pertinent scientific discipline or, if not, the methods have been appropriately peer-reviewed to ensure their reliability and validity;
3. **Logical Conclusions and Reasonable Inferences.** The conclusions presented are based on reasonable assumptions supported by other studies and consistent with the general theory underlying the assumptions. The conclusions are logically and reasonably derived from the assumptions and supported by the data presented. Any gaps in information and inconsistencies with other pertinent scientific information are adequately explained;

4. Quantitative Analysis. The data have been analyzed using appropriate statistical or quantitative methods;
5. Context. The information is placed in proper context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge; and
6. References. The assumptions, analytical techniques and conclusions are well referenced with citations to relevant, credible literature and other pertinent existing information.

D. Nonscientific Information. Nonscientific information may supplement scientific information, but it is not an adequate substitute for valid and available scientific information. Common sources of nonscientific information include the following:

1. Anecdotal Information. One or more observations that are not part of an organized scientific effort (for example, “I saw a grizzly bear in that area while I was hiking”);
2. Non-Expert Opinion. Opinions of a person who is not a qualified scientific expert in a pertinent scientific discipline (for example, “I do not believe there are grizzly bears in that area”); and
3. Hearsay. Information repeated from communication with others (for example, “At a lecture last week, Dr. Smith said there were no grizzly bears in that area”).

E. Absence of Valid Scientific Information. Where there is an absence of valid scientific information or incomplete scientific information related to a critical area leading to uncertainty about the risk to critical area function of permitting an alteration of or impact to the critical area, the Mayor or his/her designee shall:

1. Take a “precautionary or a no-risk approach,” that strictly limits development and land use activities until the uncertainty is sufficiently resolved; and
2. Require application of an effective adaptive management program that relies on scientific methods to evaluate how well regulatory and non-regulatory actions protect the critical area. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. An adaptive management program shall:
 - a. Address funding for the research component of the adaptive management program;

- b. Change course based on the results and interpretation of new information that resolves uncertainties; and
- c. Commit to the appropriate timeframe and scale necessary to reliably evaluate regulatory and non-regulatory actions affecting protection of critical areas and anadromous fisheries.

16.18A.130 Applicability

- A. The provisions of this chapter shall apply to all lands, all land uses and development activity, and all structures and facilities in the city, whether or not a permit or authorization is required, and shall apply to every person, firm, partnership, corporation, group, governmental agency, or other entity that owns, leases, or administers land within the city. No person, company, agency, or applicant shall alter a critical area or buffer except as consistent with the purposes and requirements of this chapter.
- B. The city shall not approve any permit or otherwise issue any authorizations to alter the conditions of any land, water, or vegetation, or to construct or alter any structure or improvement in, over, or on a critical area or associated buffer, without first ensuring compliance with the requirements of this chapter, including but not limited to:
 - 1. Building permit;
 - 2. Clearing and grading permit;
 - 3. Forest practices permit;
 - 4. Conditional use permit;
 - 5. Short subdivision;
 - 6. Subdivision;
 - 7. Planned unit development;
 - 8. Binding site plan;
 - 9. Zoning variance;
 - 10. Zoning code amendment; or
 - 11. Any other adopted permit or required approval not expressly exempted by this chapter.
- C. Approvals of a permit or development proposal pursuant to the provisions of this chapter does not discharge the obligation of the applicant to comply with the provisions of this chapter.

16.18A.140 Exemptions

A. Exemptions Request and Review Process. The proponent of the activity may submit a written request for exemption to the Mayor or his/her designee that describes the activity and states the exemption listed in this Section that applies. The Mayor or designee shall review the exemption request to verify that it complies with this chapter and approve or deny the exemption. If the exemption is approved, it shall be placed on file with the department. If the exemption is denied, the proponent may continue in the review process and shall be subject to the requirements of this chapter, subject to appeal in accordance with Chapter 14.04.040.

B. Exempt Activities and Impacts to Critical Areas. All exempted activities shall use reasonable methods to avoid potential impacts to critical areas. To be exempt from this chapter does not give one permission to degrade a critical area or ignore risk from natural hazards. Any incidental damage to, or alteration of, a critical area that is not a necessary outcome of the exempted activity shall be restored, rehabilitated, or replaced at the responsible party's expense.

C. Exempt Activities. The following development activities and associated uses shall be exempt from the provisions of this chapter, provided that they are otherwise consistent with the provisions of other local, state, and federal laws and requirements:

1. Emergencies. Those activities necessary to prevent and immediate threat to public health, safety, or welfare, or that pose an immediate risk of damage to private property and that require remedial or preventative action in a timeframe too short to allow for compliance with requirements of this chapter.

Emergency actions that create an impact to a critical area or its buffer shall use reasonable methods to address the emergency; in addition, they must have the least possible impact to the critical area or its buffer. The person or agency undertaking such action shall notify the city within one (1) working day following commencement of the emergency activity. Within thirty (30) days, the Mayor or his/her designee shall determine if the action taken was within the scope of the emergency actions allowed in this Subsection. If the Mayor or designee determines that the action taken, or any part of the action taken, was beyond the scope of an allowed emergency action, then enforcement provisions of Section 16.18A.350 shall apply.

After the emergency, the person or agency undertaking the action shall fully fund and conduct necessary restoration and/or mitigation for any impacts to the critical area and

buffers resulting from the emergency action in accordance with an approved critical area report and mitigation plan. The person or agency undertaking the action shall apply for review by the city, and the alteration, critical area report, and mitigation plan shall be reviewed by the city in accordance with the review procedures contained herein. Restoration and/or mitigation activities must be initiated within one (1) year of the date of the emergency, and completed in a timely manner, unless otherwise agreed to by the city per review of the critical area report and mitigation plan.

2. Operation, Maintenance, or Repair. Operation, maintenance, or repair of existing structures, infrastructure improvements, utilities, public or private roads, dikes, levees, or drainage systems, that do not require construction permits, if the activity does not further alter or increase the impact to, or encroach further within, the critical area or buffer and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair. Operation and maintenance includes vegetation management performed in accordance with best management practices that is part of ongoing maintenance of structures, infrastructure, or utilities, provided that such management actions are part of regular and ongoing maintenance, do not expand further into the critical area, are not the result of an expansion of the structure or utility, and do not directly or indirectly impact an endangered or threatened species.
3. Passive Outdoor Activities. Recreation, education, and scientific research activities that do not degrade the critical area, including fishing, hiking, and bird watching. Trails must be constructed pursuant to 16.18A.170 C(5).
4. Forest Practices. Forest practices regulated and conducted in accordance with the provisions of RCW 76.09 and forest practices regulations, Title 222 WAC, and those that are exempt from city's jurisdiction, provided that forest practice conversions are not exempt.

16.18A.150 Exceptions – Public Agency and Utility

- A. If the application of this chapter would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for an exception pursuant to this Section.
- B. Exception Request and Review Process. An application for a public agency and utility exception shall be made to the city and shall include: a critical area report, including mitigation plan, if necessary; and any other related project documents, such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State

Environmental Policy Act (RCW 43.21C) and as amended. The Mayor or his/her designee shall prepare a recommendation to the board of adjustment based on review of the submitted information, a site inspection, and the proposal's ability to comply with public agency and utility exception review criteria in Subsection (D).

C. Board of Adjustment Review. The board of adjustment shall review the application and Mayor's recommendation, and conduct a public hearing pursuant to the provisions of AMC 14.04. The board of adjustment shall approve, approve with conditions, or deny the request based on the proposal's ability to comply with all of the public agency and utility exception criteria in Subsection (D).

D. Public Agency and Utility Review Criteria. The criteria for review and approval of a public agency and utility exceptions follow:

1. There is no practical alternative to the proposed development with less impact on the critical areas;
2. The application of this chapter would unreasonably restrict the ability to provide utility services to the public.
3. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;
4. The proposal attempts to protect and mitigate impacts to the critical area functions and values consistent with the best available science; and
5. The proposal is consistent with other applicable regulations and standards.

E. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.

16.18A.160 Exceptions – Reasonable Use

A. If the application of this chapter would deny all reasonable economic use of the subject property, the property owner may apply for an exception pursuant to this chapter.

B. Exception Request and Review Process. An application for a reasonable use exception shall be made to the city and shall include a critical area identification form, critical area report, including mitigation plan, if necessary; and any other related project documents, such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State Environmental Policy Act (RCW 43.21C) (SEPA document). The Mayor or

his/her designee shall prepare a decision based on review of the submitted information, a site inspection, and the proposal's ability to comply with reasonable use exception criteria in Subsection D. The decision can be appealed to the Board of Adjustment.

C. Board of Adjustment. The board of adjustment shall review the application and conduct a public hearing pursuant to the provisions of AMC 14.04. The board of adjustments shall approve, approve with conditions, or deny the request based on the proposal's ability to comply with all of the reasonable use exception criteria in Subsection D.

D. Reasonable Use Review Criteria. Criteria for review and approval of reasonable use exceptions follow, one or more may apply:

1. The application of this chapter would deny all reasonable economic use of the property; A literal interpretation of the provisions of this chapter would deprive the applicant of all reasonable economic uses and privileges permitted to other properties in the vicinity and zone of the subject property under the terms of this chapter, and the exception requested is the minimum necessary to provide the applicant with such rights;
2. No other reasonable economic use of the property has less impact on the critical area;
3. The proposed impact to the critical area is the minimum necessary to allow for reasonable economic use of the property;
4. The inability of the applicant to derive reasonable economic use of the property is not the result of actions by the applicant, property owner or its predecessor;
5. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;
6. The proposal will result in no net loss of critical area functions and values determined in a manner consistent with the best available science; or
7. The proposal is consistent with other applicable regulations and standards.

E. Burden of Proof. The burden of proof is on the applicant to submit evidence in support of the application and provide sufficient information to make a decision on the application.

16.18A.170 Allowed Activities

A. Critical Area Report. Activities allowed under this chapter shall have been reviewed and permitted or approved by the City or other agency with jurisdiction; as such they do not require submittal of a separate critical area identification form or other critical area report. The Mayor or

his/her designee may apply conditions to the underlying permit or approval to ensure that the allowed activity is consistent with the provisions of this chapter to protect critical areas.

B. Required Use of Best Management Practices. All allowed activities shall be conducted using the best management practices, adopted pursuant to AMC 16.18D.060, 16.18D.070 and 13.46, that result in the least amount of impact to the critical areas. Best management practices shall be used for tree and vegetation protection, construction management, erosion and sedimentation control, water quality protection, and regulation of chemical applications. The city shall observe the use of best management practices to ensure that the activity does not result in degradation to the critical area. Any incidental damage to, or alteration of, a critical area shall be restored, rehabilitated, or replaced at the responsible party's expense.

C. Allowed Activities. The following activities are allowed:

1. Permit Requests Subsequent to Previous Critical Area Review. Development permits and approvals that involve both discretionary land use approvals (such as subdivisions, rezones, or conditional use permits) if all of the following conditions have been met:

- a. The provision of this chapter have been previously addressed as part of another approval;
- b. There have been no material changes in the potential impact to the critical area or buffer since the prior review;
- c. There is no new information available that is applicable to any critical area review of the site or particular critical area;
- d. The permit or approval has not expired or, if no expiration date, no more than two (2) years have elapsed since the issuance of that permit or approval; and
- e. Compliance with any standards or conditions placed upon the prior permit or approval has been achieved or secured;

2. Modification to Existing Structures. Structural modification of, addition to, or replacement of an existing legally constructed structure that does not further alter or increase the impact to the critical area or buffer and there is no increased risk to life or property as a result of the proposed modification or replacement, provided that restoration of structures substantially damaged by fire, flood, or act of nature must be initiated within one (1) year of the date of such damage, as evidenced by the issuance of a valid building permit, and diligently pursued to completion;

3. Activities Within the Improved Right-of-Way. Replacement, modification, installation, or construction of utility facilities, lines, pipes, mains, equipment, or appurtenances, not including substations, when such facilities are located within the improved portion of the public right-of-way or a city authorized private roadway except those activities that alter a wetland or watercourse, such as culvers or bridges, or result in the transport of sediment or increased stormwater; subject to the following:
 - A. Retention and replanting of native vegetation shall occur wherever possible along the right-of-way improvement and resulting disturbance;
4. Minor Utility Projects. Utility projects which have minor or short-duration impacts to critical areas, as determined by the Mayor or his/her designee in accordance with the criteria below, and which do not significantly impact the function or values of a critical area(s), provided that such projects are constructed with best management practices and additional restoration measures (e.g., native plantings) are provided. Minor activities shall not result in the transport of sediment or increased stormwater. Such allowed minor utility projects shall meet the following criteria:
 - A. There is no practical alternative to the proposed activity with less impact on critical areas.
 - B. The activity involves the placement of a utility pole, street signs, anchor, or vault or other small component of a utility facility; and
 - C. The activity involves disturbances of an area less than 75 square feet;
5. Public and Private Pedestrian Trails. Public and private pedestrian trails, except in wetlands or their buffers, or in fish and wildlife habitat conservations areas or their buffers, subject to the following:
 - A. The trail surface shall meet all other requirements including water quality standards set forth in AMC 13.46;
 - B. Trails proposed to be located in landslide or erosion hazard areas shall be constructed in a manner that does not increase the risk for landslide or erosion and in accordance with an approved geotechnical report;
6. Select Vegetation Removal Activities. The following vegetation removal activities, provided that no vegetation shall be removed from a critical area or its buffer without approval from the Mayor or his/her designee:
 - A. The removal of the following vegetation with hand labor and light equipment.

- i. Invasive and noxious weeds⁷;
 - ii. English Ivy (*Hedera helix*);
 - iii. Himalayan blackberry (*Rubus armeniacus*); and
 - iv. Cutleaf blackberry (*Rubus laciniatus*);
- B. The removal of trees from critical areas and buffers that are hazardous, posing a threat to public safety, and/or posing an imminent risk of damage to private property, provided that:
- i. The applicant submits a report from a certified arborist, registered landscape architect, or professional forester that documents the hazard and provides a replanting schedule for the replacement of trees;
 - ii. Tree cutting shall be limited to pruning and crown thinning, unless otherwise justified by a qualified professional. Where pruning or crown thinning is not sufficient to address the hazard, trees should be removed or converted to wildlife snags;
 - iii. All vegetation cut (tree stems, branches, etc.) shall be left within the critical area or buffer unless removal is warranted due to the potential for disease or pest transmittal to other healthy vegetation as documented by the certified arborist report;
 - iv. The landowner shall replace any trees that are removed with new trees as follows:
 - a. either at a ratio of two replacement trees for each tree removed (2:1) where the replacement tree is a minimum of one (1) inch in diameter-at-breast height (dbh) for deciduous trees and a minimum of six (6) feet in height for evergreen trees as measured from the top of the root ball;
 - b. or a ratio of 5:1 for seedling sized trees.

Replacement trees shall be planted within one (1) year in accordance with an approved tree replacement plan. Replacement trees may be planted at a different, nearby location within a critical area if it can be

⁷ The state maintains a noxious weed list in Chapter 16-750 WAC.

determined that planting in the same location would create a new hazard or potentially damage the critical area. Replacement trees shall be species that are native and indigenous to the area.

v. If a tree to be removed provides critical habitat, such as nesting, perching, or roosting habitat for a priority wildlife species, a qualified wildlife biologist shall be consulted to determine timing and methods of removal that will minimize impacts; and

vi. Hazard trees determined to pose an imminent threat or danger to public health or safety, to public or private property, or of serious environmental degradation may be removed or pruned by the landowner prior to receiving written approval from the city provided that within fourteen (14) days following such action, the landowner shall submit a certified arborist report and tree replacement plan that demonstrates compliance with the provisions of this chapter.

C. Measures to control a fire or halt the spread of disease or damaging insects consistent with the state Forest Practices Act; RCW 76.09, and as amended, provided that the removed vegetation shall be replaced in-kind or with similar native species within one (1) year in accordance with an approved restoration plan; and

D. Unless otherwise provided, or as a necessary part of an approved alteration, removal of any native vegetation or woody debris from a fish and wildlife habitat conservation area or wetland shall be prohibited.

7. Chemical Applications. The application of herbicides, pesticides, organic or mineral-derived fertilizers, or other hazardous substances, if necessary, as approved by the city, provided that their use shall be restricted in accordance with state Department of Fish and Wildlife Management Recommendations and the regulations of the state Department of Agriculture and the U.S. Environmental Protection Agency;⁸

8. Minor Site Investigative Work. Work necessary for land use submittals, such as surveys, soil logs, percolation tests, and other related activities, where such activities do not require construction of new roads or significant amounts of excavation. In every case,

⁸ More information on commercial and residential use of chemicals can be found in the Washington State Department of Ecology's *Guidance Document for Establishment of Critical Aquifer Recharge Areas Ordinances*, Version 3.0, Publication #97-30; and from the Washington State Department of Agriculture, <http://agr.wa.gov>.

impacts to the critical area shall be minimized and disturbed areas shall be immediately restored; and

9. Navigational Aids and Boundary Markers. Construction or modification of navigational aids, and boundary markers.

16.18A.180 Critical Area Project Review Process – General Requirements

A. As part of this review, the city shall

1. Verify the information submitted by the applicant;
2. Evaluate the project area and vicinity for critical areas;
3. Determine whether the proposed project is likely to impact the functions and values of critical areas; and
4. Determine if the proposed project has adequately implemented mitigation sequencing to first avoid impacts and has then proposed appropriately sequenced mitigation to address both permanent and temporary impacts, including both direct and indirect impacts associated with the project.

B. If the proposed project is within, adjacent to, or is likely to impact a critical area, the city shall:

1. Require a critical area report from the applicant that has been prepared by a qualified professional;
2. Review and evaluate the critical area report;
3. Determine whether the development proposal conforms to the purposes and performance standards of this chapter, including the criteria in *Review Criteria* [Chapter 14.04];
4. Assess the potential impacts to the critical area and determine if they can be avoided or minimized; and
5. Determine if the mitigation proposed by the applicant is sufficient to protect the functions and values of the critical area and public health, safety, and welfare concerns consistent with the goals, purposes, objectives, and requirements of this chapter.

16.18A.190 Critical Area Pre-application Consultation

A. Any person preparing to submit an application for development or use of land as provided in Section 14.04.040 that may be regulated by the provisions of this chapter may request a

consultation meeting with the Mayor or his/her designee prior to submitting an application for development or other approval. At this meeting, the Mayor or designee shall discuss the requirements of this chapter; provide critical area maps, scientific information, and other source materials as available to the city relative to the potential for impacts to critical areas; outline the review process; and work with the activity proponent to identify any potential concerns that might arise during the review process, in addition to discussing other permit procedures and requirements.

16.18A.200 Critical Area Identification Form

- A. Submittal. Prior to the city's consideration of any proposed activity not found to be exempt under *Exemptions* [AMC 16.18A.140] or allowed pursuant to *Allowed Activities* [Section 16.18A.170], the applicant shall submit to the department a complete critical area identification form(s) provided by the city.
- B. Site Inspection. Upon receipt of a project application and a critical area identification form, the Mayor or his/her designee shall conduct a site inspection to review critical area conditions on the site. The Mayor or designee shall notify the property owner of the inspection prior to the site visit. Reasonable access to the site shall be provided by the property owner for the purpose of inspecting during any proposal review, restoration, emergency action, or monitoring period.
- C. Critical Area Identification Form Review Process. The Mayor or designee shall review the critical area identification form, conduct a site inspection, and review other information available pertaining to the site and the proposal and make a determination as to whether any critical areas are present and may be affected by the proposal and if a more detailed critical area report shall be submitted.
 1. Decision Indicators. The Mayor or designee may use the following indicators to assist in determining the need for a critical area report:
 - a. Indication of a critical area on the city critical areas maps that may be impacted by or is adjacent to the proposed activity;
 - b. Information and scientific opinions from appropriate agencies, including but not limited to the Washington Department of Fish and Wildlife, Natural Resources, and/or Ecology;

- c. Documentation, from a scientific or other reasonable source, of the possible presence of a critical area; or
- d. A finding by a qualified professional or a reasonable belief by the Mayor or designee that a critical area may exist on or adjacent to the site of the proposed activity.

D. Decision on Critical Area Identification Form

1. No Critical Areas Present. If, after a site visit, the Mayor's analysis or that of his/her designee indicates that the project area is not within or adjacent to a critical area or buffer and that the proposed activity is unlikely to degrade the functions or values of a critical area, then the Mayor or designee shall rule that the critical area review is complete and note on the identification form the reasons that no further review is required. A summary of this information shall be included in any staff report or decision on the underlying permit.
2. Critical Areas Present, But No Impact – Waiver. If the Mayor or designee determines that there are critical areas within or adjacent to the project area, but that the best available science shows that the proposed activity is unlikely to degrade the functions or values of the critical area, the Mayor or designee may waive the requirement for a critical area report. A waiver may be granted if there is substantial evidence that all of the following requirements will be met.
 - a. There will be no alteration of the critical area or buffer;
 - b. The development proposal will not directly or indirectly impact the critical area in a manner contrary to the purpose, intent, and requirements of this chapter; and
 - c. The proposal is consistent with other applicable regulations and standards.A summary of this analysis and findings shall be included in any staff report or decision on the underlying permit.

3. Critical Areas May Be Affected by Proposal. If the Mayor or designee determines that a critical area or areas may be affected by the proposal, then the Mayor or designee shall notify the applicant that a critical area report must be submitted prior to further review of the project, and indicate each of the critical area types that should be addressed in the report.

E. Mayor's Determination Subject to Reconsideration. A determination regarding the apparent absence of one or more critical areas by the Mayor or designee is not an expert certification regarding the presence of critical areas and the determination is subject to possible reconsideration or reopening if new information is received.

If the applicant wants greater assurance of the accuracy of the critical area review determination, the applicant may choose to hire a qualified professional to provide such assurances.

16.18A.210. Critical Area Report – General Requirements

A. Preparation by Qualified Professional. If required by the Mayor or designee in accordance with Section 16.18A.180(B)(1), the applicant shall submit a critical area report prepared by a qualified professional as defined herein.

B. These general report requirements must be provided for every type of critical area (wetlands, fish and wildlife habitat conservation area, critical aquifer recharge area, and geologically hazardous area). For each type of critical areas present on a site, the applicant must provide the information listed in each respective section below.

C. Incorporation of Best Available Science. The critical area report shall use scientifically valid methods and studies in the analysis of critical area data and in the collection of all field data documenting site conditions and reference the source of science used. The critical area report shall evaluate the proposal and all probable impacts to critical areas in accordance with the provisions of this chapter.

D. Minimum Report Contents. At a minimum, the report shall contain the following:

1. The name and contact information of the applicant, a description of the proposal, and identification of the permit requested.
2. A copy of the site plan for the development proposal including:
 - a. A map to scale depicting all critical areas, buffers, setbacks, the development proposal, and any areas to be cleared, graded, filled, or otherwise disturbed; and
 - b. A description and depiction of the proposed stormwater management plan for the development and consideration of impacts or alterations to wetlands, watercourses, or drainage features on or adjacent to the site.
3. The dates of any fieldwork performed on the site;

4. Identification and characterization of all critical areas, including wetlands, water bodies, watercourses, and buffers within 300 feet of the proposed project area;
5. A statement specifying the accuracy of the report, and all assumptions made and relied on;
6. An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development;
7. A narrative describing site development alternatives appropriate to document mitigation sequencing;
8. A description of reasonable efforts made to apply mitigation sequencing pursuant to *Mitigation Sequencing* [Section 16.18A.250] to first avoid, then minimize and finally mitigate for remaining unavoidable impacts to critical areas;
9. Plans for adequate mitigation, as needed, to offset any unavoidable impacts, in accordance with *Mitigation Plan Requirements* [Section 16.18A.260], including, but not limited to provisions for adequate mitigation of:
 - a. The impacts of any proposed development within or adjacent to a critical area or buffer on the critical area; and
 - b. The impacts of any proposed alteration of a critical area or buffer on the development proposal, other properties and the environment;
10. A discussion of the performance standards applicable to proposed mitigation for impacts on the critical area and construction and operation of the proposed activity;
11. Financial guarantees to ensure compliance; and
12. Any additional information required for the critical area (i.e., wetland, fish and wildlife habitat conservation area, critical aquifer recharge area, or geologically hazardous area) as specified in the corresponding section below.

E. Unless otherwise provided, a critical area report may be supplemented by or composed, in whole or in part, of any reports or studies required by other laws and regulations or previously prepared for and applicable to the development proposal site, as approved by the Mayor or his/her designee.

16.18A.230 Critical Area Report – Modification to Requirements

A. Limitations to Study Area. The Mayor or designee may limit the required geographic area of the critical area report if:

1. The applicant, with assistance from the city, cannot obtain permission to satisfactorily access properties adjacent to the project area; or
 2. The proposed activity will affect only a limited part of the subject site.
- B. Modifications to Required Contents. The applicant may consult with the Mayor or designee prior to or during preparation of the critical area report to obtain city approval of modifications to the required contents of the report where, in the judgment of a qualified professional, more or less information is required to adequately address the potential critical area impacts and required mitigation.
- C. Additional Information Requirements. The Mayor or designee may require additional information to be included in the critical area report when determined to be necessary to the review of the proposed activity in accordance with this chapter. Additional information that may be required, includes, but is not limited to:
1. Historical data, including original and subsequent mapping, aerial photographs, data compilations and summaries, and available reports and records relating to the site or past operations at the site;
 2. Grading and drainage plans; and
 3. Information specific to the type, location, and nature of the critical area.

16.18A.240 Mitigation Requirements

- A. The applicant shall avoid all impacts that degrade the functions and values of a critical area or areas. Unless otherwise provided in this chapter, if alteration to the critical area is unavoidable, all adverse impacts to or from critical areas and buffers resulting from a development proposal or alteration shall be mitigated using the best available science in accordance with an approved critical area report and SEPA documents, so as to result in no net loss of critical area functions, values, and area.
- B. Mitigation shall be in-kind and on-site, when possible and appropriate given site conditions, and sufficient to maintain the functions and values of the critical area, and to prevent risk from a hazard posed by a critical area.
- C. Mitigation shall not be implemented until after city approval of a critical area report that includes a mitigation plan, and mitigation shall be in accordance with the provisions of the approved critical area report.

16.18A.250 Mitigation Sequencing.

Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas. When an alteration to a critical area is proposed, such alterations shall be avoided, minimized, or compensated for in the following sequential order of preference:

- A. Avoiding the impact altogether by not taking a certain action or parts of an action;
- B. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
- C. Rectifying the impacts to wetlands, critical aquifer recharge areas, and fish and wildlife habitat conservation areas by repairing, rehabilitating, or restoring the affected environment to the historical conditions or to conditions of at least the quality of those conditions existing at the time of the initiation of the project.
- D. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods.
- E. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action.
- F. Compensating for the impact to wetlands, critical aquifer recharge areas, and fish and wildlife habitat conservation areas by replacing, enhancing, or providing substitute resources or environments of equivalent or better quality; and
- G. Monitoring the hazard or other required mitigation to ensure compliance with mitigation performance standards, and taking remedial action when necessary to correct any deficits or unanticipated conditions.

Mitigation for individual actions may include a combination of the above measures so long as there is not net loss of critical area functions, values, or area.

16.18A.260 Mitigation Plan Requirements

When mitigation is required, the applicant shall submit for approval by the city a mitigation plan as part of the critical area report. The mitigation plan shall include:

- A. Environmental Goals and Objectives. The mitigation plan shall include a written report identifying environmental goals and objectives of the compensatory mitigation proposed and including:

1. A description and quantification of the anticipated impacts to the critical areas and the mitigation actions proposed and the purposes of the compensatory mitigation measures, including the mitigation site selection criteria; identification of compensation goals; identification of resource functions; and dates for beginning and completion of site compensation construction activities. The goals and objectives shall be related to the specific functions and values of the critical area(s) impacted by the project;
 2. An analysis of the likelihood of success of the compensatory mitigation project based on site selection, type of mitigation proposed, and functions and values to be replicated.
- B. Performance Standards. The mitigation plan shall include measurable specific criteria for evaluating whether or not the goals and objectives of the mitigation project have been successfully attained and whether or not the requirements of this chapter have been met.
- C. Detailed Construction Plans. The mitigation plan shall include detailed construction plans, including written specifications and descriptions of the mitigation proposed, including:
1. The proposed construction sequence, timing, and duration;
 2. Grading and excavation details;
 3. Erosion and sediment control features;
 4. A planting plan specifying plant species, sources, quantities, locations, size, and spacing; and
 5. Measures to protect and maintain plants until established, including provisions for soil amendments and temporary irrigation.

These written specifications shall be accompanied by detailed site diagrams, scaled cross-sectional drawings, topographic maps showing slope percentage and final grade elevations, and any other drawings appropriate to show construction techniques or anticipated final outcome.

- D. Monitoring Program. The mitigation plan shall include a program for monitoring construction of the compensatory mitigation project and for assessing a completed project. A protocol shall be included outlining the schedule for site monitoring and how the monitoring data will be evaluated to determine if the performance standards are being met. A monitoring report shall be submitted to the city at least annually to document

milestones, successes, problems, and contingency actions relative to the compensatory mitigation project. All mitigation plans shall include a minimum monitoring period of 5 years, but shall also include monitoring of longer duration when necessary to establish that performance standards have been met (for example 10 years for forested conditions).

E. Contingency Plan. The mitigation plan shall include identification of potential courses of action, and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met.

F. Financial Guarantees. The mitigation plan shall include financial guarantees, if necessary, to ensure that the mitigation plan is fully implemented. Financial guarantees ensuring fulfillment of the compensatory mitigation project, monitoring program, and any contingency measures shall be posted in accordance with *Bonds to Ensure Mitigation, Maintenance, and Monitoring* [Section 16.18A.410].

16.18A.270 Innovative Mitigation

A. The city may encourage, facilitate, develop, and approve innovative mitigation projects that are based on the best available science. Advance mitigation, mitigation banking, or Fee-In-Lieu are examples of alternative mitigation projects allowed under the provisions of this Section wherein one or more applicants, the City, or an organization with demonstrated capability, may undertake a mitigation project together if it is demonstrated that all of the following circumstances exist:

1. Creation or enhancement of a larger system of critical areas and open space is preferable to the preservation or creation of many individual habitat areas;
2. The group demonstrates the organizational and fiscal capability to act cooperatively;
3. The group demonstrates that long-term management of the habitat area will be provided; and
4. There is a clear potential for success of the proposed mitigation at the identified mitigation site.

B. Conducting mitigation as part of a cooperative process does not reduce or eliminate the required replacement ratios.

16.18A.280 Determination

The Mayor or designee shall make a determination as to whether the proposed activity and mitigation, if any, is consistent with the provisions of this chapter. The Mayor's determination shall be based on the criteria of *Review Criteria* [Section 16.18A.290].

16.18A.290 Review Criteria

A. Any alteration to a critical area, unless otherwise provided for in this chapter, shall be reviewed and approved, approved with conditions, or denied based on the proposal's ability to comply with all of the following criteria:

1. The proposal minimizes the impact on critical areas in accordance with *Mitigation Sequencing* [Section 16.18A.250];
2. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;
3. The proposal is consistent with the general purposes of this chapter and the public interest;
4. Any alterations permitted to the critical area are mitigated in accordance with *Mitigation Requirements* [Section 16.18A.240];
5. The proposal protects the critical area functions and values consistent with the best available science and results in no net loss of critical area functions, values, or area; and
6. The proposal is consistent with other applicable regulations and standards.

B. The city may condition the proposed activity as necessary to mitigate impacts to critical areas and to conform to the standards required by this chapter.

C. Except as provided for by this chapter, any project that cannot adequately mitigate its impacts to critical areas in the sequencing order of preferences in *Mitigation Sequencing* [Section 16.18A.250] shall be denied.

16.18A.300 Favorable Determination

If the Mayor or designee determines that the proposed activity meets the criteria in *Review Criteria* [Section 16.18A.290] and complies with the applicable provisions of this chapter, the Mayor, or designee shall prepare a written notice of determination and identify any required conditions of approval. The notice of determination and conditions of approval shall be included

in the project file and be considered in the next phase of the city's review of the proposed activity in accordance with any other applicable codes or regulations.

Any conditions of approval included in a notice of determination shall be attached to the underlying permit or approval. Any subsequent changes to the conditions of approval shall void the previous determination pending re-review of the proposal and conditions of approval by the Mayor or designee.

A favorable determination should not be construed as endorsement or approval of any underlying permit or approval.

16.18A.310 Unfavorable Determination

If the Mayor or designee determines that a proposed activity does not adequately mitigate its impacts on the critical areas and/or does not comply with the criteria in *Review Criteria* [Section 16.18A.290] and the provisions of this chapter, the Mayor or his/her designee shall prepare written notice of the determination that includes findings of noncompliance.

No proposed activity or permit shall be approved or issued if it is determined that the proposed activity does not adequately mitigate its impacts on the critical areas and/or does not comply with the provisions of this chapter.

Following notice of determination that the proposed activity does not meet the review criteria and/or does not comply with the applicable provisions of this chapter, the applicant may request consideration of a revised critical area report. If the revision is found to be substantial and relevant to the critical area review, the Mayor or designee may reopen the critical area review and make a new determination based on the revised report.

16.18A.320 Completion of the Critical Area Review

The city's determination regarding critical areas pursuant to this chapter shall be final concurrent with the final decision to approve, condition, or deny the development proposal or other activity involved.

16.18A.330 Appeals

Any decision to approve, condition, or deny a development proposal or other activity based on the requirements of this chapter may be appealed according to, and as part of, the appeal procedure for the permit or approval involved.

16.18A.340 Variances

- A. Variances from the standards of this chapter may be authorized by the city in accordance with the procedures set forth in Section 14.04.050 of the city code. The Board of adjustment shall review the request and make a written finding that the request meets or fails to meet the variance criteria.
- B. Variance Criteria. A variance may be granted only if the applicant demonstrates that the requested action conforms to all of the criteria set forth as follows:
1. Special conditions and circumstances exist that are peculiar to the land, the lot, or something inherent in the land, and that are not applicable to other lands in the same district;
 2. The special conditions and circumstances do not result from the actions of the applicant;
 3. Granting the variance requested will not confer on the applicant any special privilege that would be denied by this chapter to other lands, structures, or buildings under similar circumstances;
 4. The granting of the variance is consistent with the general purpose and intent of this chapter, and will not further degrade the functions or values of the associated critical areas or otherwise be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity of the subject property;
 6. The decision to grant the variance includes the best available science and gives special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish habitat; and
 7. The granting of the variance is consistent with the general purpose and intent of the *City of Algona Comprehensive Plan Goals and Policies* and adopted development regulations.
- C. Conditions May Be Required. In granting any variance, the city may prescribe such conditions and safeguards as are necessary to secure adequate protection of critical areas from adverse impacts, and to ensure conformity with this chapter. For example, preparation of a compensatory mitigation plan for unavoidable impacts would be required consistent with 16.18A.240.

- D. Time Limit. The city shall prescribe a time limit within which the action for which the variance is required shall be begun, completed, or both. Failure to begin or complete such action within the established time limit shall void the variance.
- E. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and upon which any decision has to be made on the application.

16.18A.350 Unauthorized Critical Area Alterations and Enforcement

- A. When a critical area or its buffer has been altered in violation of this chapter, all ongoing development work shall stop and the critical area shall be restored. The city shall have the authority to issue a stop work order to cease all ongoing development work, and order restoration, rehabilitation, or replacement measures at the owner's or other responsible party's expense to compensate for violation of provisions of this chapter.
- B. Requirement for Restoration Plan. All development work shall remain stopped until a restoration plan is prepared and approved by the city. Such a plan shall be prepared by a qualified professional using the best available science and shall describe how the actions proposed meet the minimum requirements described in Subsection (C). The Mayor or designee shall, at the violator's expense, seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the applicant or violator for revision and resubmittal.
- C. Minimum Performance Standards for Restoration
 - 1. For alterations to critical aquifer recharge areas, wetlands, and fish and wildlife habitat conservation areas, the following minimum performance standards shall be met for the restoration of a critical area, provided that if the violator can demonstrate that greater functional and habitat values can be obtained, these standards may be modified:
 - a. The historic, structural, and functional conditions of the critical area shall be restored, including topography, plant community structure, water quality improvement functions, flooding and erosion control functions, and habitat functions;
 - b. The historic soil types and configuration shall be replicated;
 - c. The critical area and buffers shall be replanted with native vegetation that replicates the vegetation historically found on the site in species types, sizes,

and densities. The historic functions and values should be replicated at the location of the alteration; and

- d. Information demonstrating compliance with the requirements in Section 16.18A.260 (*Mitigation Plan Requirements*) shall be submitted to the Mayor or designee.

2. For alterations to flood and geological hazards, the following minimum performance standards shall be met for the restoration of a critical area, provided that, if the violator can demonstrate that greater safety can be obtained, these standards may be modified:

- a. The hazard shall be reduced to a level equal to, or less than, the pre-development hazard;
- b. Any risk of personal injury resulting from the alteration shall be eliminated or minimized; and
- c. The hazard area and buffers shall be replanted with native vegetation sufficient to minimize the hazard.

D. Site Investigations. The Mayor or his/her designee is authorized to make site inspections and take such actions as are necessary to enforce this chapter. The Mayor or designee shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property.

16.18A.360 Critical Area Markers and Signs

- A. The boundary at the outer edge of critical area tracts, easements, and Native Growth Protection Areas shall be delineated with permanent survey stakes, using iron or concrete markers as established by local survey standards.
- B. The boundary at the outer edge of the critical area or buffer shall be identified with temporary signs prior to any site alteration. Such temporary signs shall be replaced with permanent signs identifying the critical area and its protections prior to occupancy or use of the site.
- C. These provisions may be modified by the Mayor, or designee as necessary to ensure protection of sensitive features or wildlife needs.

16.18A.370 Notice on Title

- A. In order to inform subsequent purchasers of real property of the existence of critical areas, the owner of any property containing a critical area or buffer on which a development proposal is submitted shall file a notice with the King County Recorder's Office which shall state the presence of the critical area, buffer, or native growth protection area on the property, the application of this chapter to the property, and the fact that limitations on actions in or affecting the critical area or buffer may exist. The notice shall "run with the land."
- B. This notice on title shall not be required for a development proposal by a public agency or public or private utility:
 - 1. Within a recorded easement or right-of-way;
 - 2. Where the agency or utility has been adjudicated the right to an easement or right-of-way; or
 - 3. On the site of a permanent public facility.
- C. The applicant shall submit proof that the notice has been filed for public record before the city approves any site development or construction for the property or, in the case of subdivisions, short subdivisions, planned unit developments, and binding site plans, at or before recording.

16.18A.380 Native Growth Protection Areas

- A. Unless otherwise required in this chapter, native growth protection areas shall be used in development proposals for subdivisions, short subdivisions, planned unit developments, and binding site plans to delineate and protect those contiguous critical areas and buffers listed below:
 - 1. All landslide hazard areas and buffers;
 - 2. All wetlands and buffers;
 - 3. All fish and wildlife habitat conservation areas; and
 - 4. All other lands to be protected from alterations as conditioned by project approval.
- B. In accordance with Chapter 16.18A.370, native growth protection areas shall be recorded on all documents of title of record for all affected lots.
- C. Native growth protection areas shall be designated on the face of the plat or recorded drawing in a format approved by the city. The designation shall include the following restrictions:

1. An assurance that native vegetation will be preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering, and protecting plants, fish, and animal habitat; and implementing any adopted critical areas mitigation plan.
2. The right of the city to enforce the terms of the restriction.

16.18A.390 Critical Area Tracts

- A. Critical area tracts shall be used in development proposals for subdivisions, short subdivisions, planned unit developments, and binding site plans to delineate and protect those contiguous critical areas and buffers listed below that total five thousand (5,000) or more square feet:
1. All landslide hazard areas and buffers;
 2. All wetlands and buffers;
 3. All fish and wildlife habitat conservation areas; and
 4. All other lands to be protected from alterations as conditioned by project approval.
- B. In accordance with Chapter 16.18A.370 Critical area tracts shall be recorded on all documents of title of record for all affected lots.
- C. Critical area tracts shall be designated on the face of the plat or recorded drawing in a format approved by the city. The designation shall include the following restriction:
1. An assurance that native vegetation will be preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering, and protecting plants, fish, and animal habitat; and
 2. The right of the city to enforce the terms of the restriction.
- D. The city may require that any required critical area tract be dedicated to the city, held in an undivided interest by each owner of a building lot within the development with the ownership interest passing with the ownership of the lot, or held by an incorporated homeowner's association or other legal entity (such as a land trust, which ensures the ownership, maintenance, and protection of the tract).

16.18A.400 Building Setbacks

Unless otherwise provided, buildings and other structures shall be set back a distance of fifteen (15) feet from the edges of all critical area buffers or from the edges of all critical areas, if no buffers are required. The following may be allowed in the building setback area:

- A. Landscaping with native plants;
- B. Uncovered decks;
- C. Building overhangs, if such overhangs do not extend more than eighteen (18) inches into the setback area; and
- D. Impervious ground surfaces, such as driveways and patios, provided that such improvements may be subject to water quality regulations as adopted in AMC 13.46.

16.18A.410 Bonds to Ensure Mitigation, Maintenance, and Monitoring

- A. When mitigation required pursuant to a development proposal is not completed prior to the city final permit approval, such as final plat approval or final building inspection, the city shall require the applicant to post a performance bond or other security in a form and amount deemed acceptable by the city. If the development proposal is subject to mitigation, the applicant shall post a mitigation bond or other security in a form and amount deemed acceptable by the city to ensure mitigation is installed, maintained, and deemed fully functional within its performance period.
- B. The bond shall be in the amount of one hundred and twenty-five percent (125%) of the estimated cost of the uncompleted actions or the estimated cost of restoring the functions and values of the critical area that are at risk, whichever is greater.
- C. The bond shall be in the form of a surety bond, performance bond, assignment of savings account, or an irrevocable letter of credit guaranteed by an acceptable financial institution with terms and conditions acceptable to the city attorney.
- D. Bonds or other security authorized by this Section shall remain in effect until the city determines, in writing, that the standards bonded for have been met. Bonds or other security shall be held by the city for a minimum of five (5) years to ensure that the required mitigation has been fully implemented and demonstrated to function, and may be held for longer periods when necessary.
- E. Depletion, failure, or collection of bond funds shall not discharge the obligation of an applicant or violator to complete required mitigation, maintenance, monitoring, or restoration.

- F. Public development proposals shall be relieved from having to comply with the bonding requirements of this Section if public funds have previously been committed for mitigation, maintenance, monitoring, or restoration.
- G. Any failure to satisfy critical area requirements established by law or condition including, but not limited to, the failure to provide a monitoring report within thirty (30) days after it is due or comply with other provisions of an approved mitigation plan shall constitute a default, and the city may demand payment of any financial guarantees or require other action authorized by the city code or any other law.
- H. Any funds recovered pursuant to this Section shall be used to complete the required mitigation.

16.18A.420 Critical Area Inspections

Reasonable access to the site shall be provided to the city, state, and federal agency review staff for the purpose of inspections during any proposal review, restoration, emergency action, or monitoring period.

Chapter 16.18B

Wetlands

Designation, Rating, and Mapping

16.18B.010 Designation, Rating, and Mapping

Allowed Activities – Wetlands

16.18B.020 Activities Allowed in Wetlands

Additional Report Requirements – Wetlands

16.18B.030 Critical Area Report – Additional Requirements for Wetland

Performance Standards

16.18B.040 Performance Standards – General Requirements

16.18B.050 Performance Standards – Mitigation Requirements

16.18B.060 Performance Standards – Subdivisions

16.18B.010 Identification and Rating of Wetlands

A. Identification and Delineation. Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the approved and current federal wetland delineation manual and applicable regional supplements. All areas within the City meeting the wetland designation criteria in that procedure are hereby designated critical areas and are subject to the provisions of this chapter. Wetland delineations are valid for five years; after such date the City shall determine whether a revision or additional assessment is necessary.

B. Rating. Wetlands shall be rated according to the Washington Department of Ecology wetland rating system, as set forth in the most current version of the *Washington State Wetland Rating System for Western Washington* or as revised and approved by Ecology, which evaluates wetlands relative to their functions and values.

C. Date of wetland rating. Wetland rating categories shall be applied as the wetland exists on the date of adoption of the rating system by the City, and may subsequently change over time as the wetland naturally changes thereafter, or as the wetland changes in accordance with permitted activities.

- D. Illegal modifications. Wetland rating categories shall not change due to illegal modifications made by the applicant or with the applicant's knowledge.

16.18B.020 Regulated Activities

- A. For any regulated activity, a critical areas report (see Chapter 16.18A.210) shall be required to support the requested activity.
- B. The following activities are regulated if they occur in a regulated wetland or its buffer:
1. The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind.
 2. The dumping of, discharging of, or filling with any material.
 3. The draining, flooding, or disturbing of the water level or water table.
 4. Pile driving.
 5. The placing of obstructions.
 6. The construction, reconstruction, demolition, or expansion of any structure.
 7. The destruction or alteration of wetland vegetation through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated wetland.
 8. "Class IV - General Forest Practices" under the authority of the "1992 Washington State Forest Practices Act Rules and Regulations," WAC 222-12-030, or as thereafter amended.
 9. Activities that result in:
 - a. A significant change of water temperature.
 - b. A significant change of physical or chemical characteristics of the sources of water to the wetland.
 - c. A significant change in the quantity, timing, or duration of the water entering the wetland.
 - d. The introduction of pollutants
- C. Subdivisions. The subdivision and/or short subdivision of land in wetlands and associated buffers are subject to the following:
1. Land that is located wholly within a wetland or its buffer may not be subdivided.
 2. Land that is located partially within a wetland or its buffer may be subdivided provided that an accessible and contiguous portion of each new lot is:
 - a. Located outside of the wetland and its buffer; and
 - b. Meets the minimum lot size requirements of Title 22.

16.18B.030 Exemptions and Allowed Uses in Wetlands

- A. Activities Allowed in Wetlands. The activities listed below are allowed in wetlands. These activities may not require submission of a critical area report for wetlands, except where

such activities result in a loss of the functions and values of a wetland or wetland buffer.

These activities include:

1. Those activities and uses conducted pursuant to the Washington State Forest Practices Act and its rules and regulations, WAC 222-12-030, where state law specifically exempts local authority, except those developments requiring local approval for Class 4 – General Forest Practice Permits (conversions) as defined in RCW 76.09 and WAC 222-12.
2. Conservation or preservation of soil, water, vegetation, fish, or other wildlife that does not entail changing the structure or functions of the existing wetland.
3. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.
4. Drilling for utilities/utility corridors under a wetland, with entrance/exit portals located completely outside of the wetland buffer, provided that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are required to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column will be disturbed.
5. Enhancement of a wetland through the removal of non-native invasive plant species. Removal of invasive plant species shall be restricted to hand removal unless permits from the appropriate regulatory agencies have been obtained for approved biological or chemical treatments. All removed plant material shall be taken away from the site and appropriately disposed of. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds must be handled and disposed of according to a noxious weed control plan appropriate to that species. Re-vegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.
6. Educational and scientific research activities.
7. Normal and routine maintenance and repair of any existing public or private facilities within an existing right-of-way, provided that the maintenance or repair does not expand the footprint of the facility or right-of-way.

16.18B.040 Wetland Buffers

- A. Buffer Requirements. The standard buffer widths in Table 16.18B.040.1 have been established in accordance with the best available science. They are based on the category of wetland and the habitat score as determined by a qualified wetland professional using

the most current version of the *Washington State Wetland Rating System for Western Washington*.

1. The use of the standard buffer widths requires the implementation of the measures, where possible, in Table 16.18B.040.2, where applicable, to minimize the impacts of the adjacent land uses.
2. If an applicant chooses not to apply the mitigation measures in Table 16.18B.040.2, then a 33% increase in the width of all buffers is required. For example, a 75-foot buffer with the measures to minimize impact would be a 100-foot buffer without them.
3. The standard buffer widths assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer should either be planted to create the appropriate plant community, or the buffer should be widened to ensure that adequate functions of the buffer are provided.

Table 16.18.B.040.1 Wetland Buffer Requirements for Western Washington

Wetland Category	Buffer Width if wetland scores 3-4 habitat points	Additional buffer width if wetland scores 5 habitat points	Additional buffer width if wetland scores 6-7 habitat points	Additional buffer width if wetland scores 8-9 habitat points
Category I: Based on total score	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category I: Bogs and wetlands Of high conservation value	190 ft			Add 35 ft
Category I: Forested	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category II: Based on score	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category III: (all)	60 ft	Add 45 ft	Add 105 ft	Add 165 ft
Category IV: (all)	40 ft.			

4. Additional buffer widths are added to the standard buffer widths. For example, a Category I wetland scoring 8 to 9 points for habitat function would require a buffer of 225 feet (75 + 150).

Table 16.18B.040.2 Required measures to minimize impacts to wetlands
(Measures are required, where applicable to a specific proposal.)

Type of Disturbance	Required Measures to Minimize Impact
Lights	<ul style="list-style-type: none"> • Direct lights down and away from the wetland
Noise	<ul style="list-style-type: none"> • Orient noise-generating activities away from wetland edge
Toxic runoff	<ul style="list-style-type: none"> • Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered. • Establish covenants limiting use of pesticides and herbicides within 150 feet of wetland buffer.
Stormwater runoff	<ul style="list-style-type: none"> • Retrofit stormwater detention and treatment for roads and existing adjacent development. • Prevent channelized flow from lawns that directly enters the buffer.
Change in water regime	<ul style="list-style-type: none"> • Apply appropriate stormwater management to infiltrate, treat, detain, and disperse runoff appropriately and only into outer edge of buffer, if allowed.
Pets and Human Activity	<ul style="list-style-type: none"> • Use privacy fencing OR plant dense native vegetation to delineate buffer edge and to discourage entry into buffer by humans and pets. • Place wetland and buffer in a NGPA or tract.
Dust	<ul style="list-style-type: none"> • Use best management practices to control dust.
Disruption of corridors or connections	<ul style="list-style-type: none"> • Maintain connections to offsite areas that are undisturbed • Restore corridors or connections to offsite habitats by replanting

5. Increased Wetland Buffer Area Width. Buffer widths shall be increased on a case-by-case basis as determined by the Mayor or designee when a larger buffer is necessary to protect wetland functions and values. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions and values of the wetland. The documentation must include but not be limited to the following criteria:

- a. The wetland is used by a plant or animal species listed by the federal government or the state as endangered, threatened, candidate, sensitive, monitored or documented priority species or habitats, or essential or outstanding habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or
 - b. The adjacent land is susceptible to severe erosion, and erosion-control measures will not effectively prevent adverse wetland impacts; or
 - c. The adjacent land has minimal vegetative cover or slopes greater than 30 percent.
6. Buffer averaging to *improve wetland protection* may be permitted when **all** of the following conditions are met:
- a. The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or a “dual-rated” wetland with a Category I area adjacent to a lower-rated area.
 - b. The buffer is increased adjacent to the higher-functioning area of habitat or more-sensitive portion of the wetland and decreased adjacent to the lower-functioning or less-sensitive portion as demonstrated by a critical areas report from a qualified wetland professional.
 - c. The total area of the buffer after averaging is equal to the area required without averaging.
 - d. The buffer at its narrowest point is never less than either $\frac{3}{4}$ of the required width or 75 feet for Category I and II, 50 feet for Category III, and 25 feet for Category IV, whichever is greater.
- B. Measurement of Wetland Buffers. All buffers shall be measured perpendicular from the wetland boundary as surveyed in the field. The buffer for a wetland created, restored, or enhanced as compensation for approved wetland alterations shall be the same as the buffer required for the target category of the created, restored, or enhanced wetland. Only fully vegetated buffers will be considered. Existing lawns, walkways, driveways, and other mowed or paved areas will not be considered to be buffers or included in buffer area calculations.

- C. Buffers on Mitigation Sites. All mitigation sites shall have buffers consistent with the buffer requirements of this Chapter. Buffers shall be based on the expected or target category of the proposed wetland mitigation site.
- D. Buffer Maintenance. Except as otherwise specified or allowed in accordance with this Chapter, wetland buffers shall be retained in an undisturbed or enhanced condition. In the case of compensatory mitigation sites, removal of invasive non-native weeds is required for the duration of the mitigation bond (Section 16.18A.410).
- E. Impacts to Buffers. Requirements for the compensation for impacts to buffers are outlined in Section 16.18A.260 of this Chapter.
- F. Overlapping Critical Area Buffers. If buffers for two contiguous critical areas overlap (such as buffers for a stream and a wetland), the wider buffer applies.
- G. Allowed Buffer Uses. The following uses may be allowed within a wetland buffer in accordance with the review procedures of this Chapter, provided they are not prohibited by any other applicable law and they are conducted in a manner so as to minimize impacts to the buffer and adjacent wetland:
 - 1. Conservation and Restoration Activities. Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.
 - 2. Passive recreation. Passive recreation facilities designed and in accordance with an approved critical area report, including:
 - a. Walkways and trails, provided that those pathways are limited to minor crossings having no adverse impact on water quality. They should be generally parallel to the perimeter of the wetland, located only in the outer twenty-five percent (25%) of the wetland buffer area, and located to avoid removal of significant trees. They should be limited to pervious surfaces no more than five (5) feet in width for pedestrian use only. Raised boardwalks utilizing non-treated pilings may be acceptable.
 - b. Wildlife-viewing structures.
 - 3. Educational and scientific research activities.
 - 4. Normal and routine maintenance and repair of any existing public or private facilities within an existing right-of-way, provided that the maintenance or repair does not increase the footprint or use of the facility or right-of-way.

5. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.
6. Drilling for utilities/utility corridors under a buffer, with entrance/exit portals located completely outside of the wetland buffer boundary, provided that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are required to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column is disturbed.
7. Enhancement of a wetland buffer through the removal of non-native invasive plant species. Removal of invasive plant species shall be restricted to hand removal. All removed plant material shall be taken away from the site and appropriately disposed of. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds must be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.
8. Stormwater management facilities. Stormwater management facilities are limited to stormwater dispersion outfalls and bioswales. They may be allowed within the outer twenty-five percent (25%) of the buffer of Category III or IV wetlands only, provided that:
 - a. No other location is feasible; and
 - b. The location of such facilities will not degrade the functions or values of the wetland;
and
 - c. Stormwater management facilities are not allowed in buffers of Category I or II wetlands.
9. Non-Conforming Uses. Repair and maintenance of non-conforming uses or structures, where legally established within the buffer, provided they do not increase the degree of nonconformity.

H. Signs and Fencing of Wetlands and Buffers:

1. Temporary markers. The outer perimeter of the wetland buffer and the clearing limits identified by an approved permit or authorization shall be marked in the field with temporary “clearing limits” fencing in such a way as to ensure that no unauthorized intrusion will occur. The marking is subject to inspection by the Mayor or designee prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.
2. Permanent signs. As a condition of any permit or authorization issued pursuant to this Chapter, the Mayor or designee may require the applicant to install permanent signs along the boundary of a wetland or buffer.
 - a. Permanent signs shall be made of an enamel-coated metal face and attached to a metal post or another non-treated material of equal durability. Signs must be posted at an interval of one (1) per lot or every fifty (50) feet, whichever is less, and must be maintained by the property owner in perpetuity. The signs shall be worded as follows or with alternative language approved by the Mayor or designee

**Protected Wetland Area
Do Not Disturb
Contact City of Algona at 253-833-2897
Regarding Uses, Restrictions, and
Opportunities for Stewardship**

- b. The provisions of Subsection (a) may be modified as necessary to assure protection of sensitive features or wildlife.
3. Fencing
 - a. The applicant shall be required to install a permanent fence around the wetland or buffer when domestic grazing animals are present or may be introduced on site.
 - b. Fencing installed as part of a proposed activity or as required in this Subsection shall be designed so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes impacts to the wetland and associated habitat.

16.18B.050 Critical Area Report – Additional Requirements for Wetlands

- A. In addition to the general critical area report requirements of Section 16.18A.210, critical area reports for wetlands must meet the requirements of this Section. Critical area reports for two or more types of critical areas must meet the report requirements for each relevant type of critical area.

B. If the Mayor, or designee determines that the site of a proposed development includes, is likely to include, or is adjacent to a wetland, a wetland report, prepared by a qualified professional, shall be required. The expense of preparing the wetland report shall be borne by the applicant.

C. Minimum Standards for Wetland Reports.

1. The written report shall contain the following information, at a minimum:

- a. The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the wetland critical area report; a description of the proposal; identification of all the local, state, and/or federal wetland-related permit(s) required for the project; and a vicinity map for the project.
- b. A statement specifying the accuracy of the report and all assumptions made and relied upon.
- c. Documentation of any fieldwork performed on the site, including field data sheets for delineations, rating system forms, baseline hydrologic data, etc.
- d. A description of the methodologies used to conduct the wetland delineations, rating system forms, or impact analyses including references.
- e. Identification and characterization of all critical areas, wetlands, water bodies, shorelines, floodplains, and buffers on or adjacent to the proposed project area. For areas off site of the project site, estimate conditions within 300 feet of the project boundaries using the best available information.
- f. For each wetland identified on site and within 300 feet of the project site provide: the wetland rating, including a description of and score for each function, per *Wetland Ratings* (Section 16.18B.010) of this chapter; required buffers; hydrogeomorphic classification; wetland acreage based on a professional survey from the field delineation (acreages for on-site portion and entire wetland area including off-site portions); Cowardin classification of vegetation communities; habitat elements; soil conditions based on site assessment and/or soil survey information; and to the extent possible, hydrologic information such as location and condition of inlet/outlets (if they can be legally accessed), estimated water depths within the wetland, and estimated hydroperiod patterns based on visual cues (e.g., algal mats, drift lines, flood debris, etc.). Provide acreage estimates, classifications, and ratings based on entire wetland complexes, not only the portion present on the proposed project site.
- g. A description of the proposed actions, including an estimation of acreages of impacts to wetlands and buffers based on the field delineation and survey and an analysis of site development alternatives, including a no-development alternative.
- h. An assessment of the probable cumulative impacts to the wetlands and buffers resulting from the proposed development.

- i. A description of reasonable efforts made to apply mitigation sequencing pursuant to Mitigation Sequencing (Section 16.18.A.250) to avoid, minimize, and mitigate impacts to critical areas.
 - j. A discussion of measures, including avoidance, minimization, and compensation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land-use activity.
 - k. A conservation strategy for habitat and native vegetation that addresses methods to protect and enhance on-site habitat and wetland functions
 - .
 - l. An evaluation of the functions of the wetland and adjacent buffer. Include reference for the method used and data sheets.
2. A copy of the site plan sheet(s) for the project must be included with the written report and must include, at a minimum:
- a. Maps (to scale) depicting delineated and surveyed wetland and required buffers on site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; grading and clearing limits; areas of proposed impacts to wetlands and/or buffers (include square footage estimates).
 - b. A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project.

16.18B.060 Compensatory Mitigation

A. Mitigation Sequencing. Before impacting any wetland or its buffer, an applicant shall demonstrate that the following actions have been taken. Actions are listed in the order of preference:

- 1. Avoid the impact altogether by not taking a certain action or parts of an action.
- 2. Minimize impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
- 3. Rectify the impact by repairing, rehabilitating, or restoring the affected environment.
- 4. Reduce or eliminate the impact over time by preservation and maintenance operations.
- 5. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments.
- 6. Monitor the required compensation and take remedial or corrective measures when necessary.

B. Requirements for Compensatory Mitigation:

1. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with *Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans--Version 1*, (Ecology Publication #06-06-011b, Olympia, WA, March 2006 or as revised), and *Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington)* (Publication #09-06-32, Olympia, WA, December 2009).

2. Mitigation ratios shall be consistent with Subsection G of this chapter.

Mitigation requirements may also be determined using the credit/debit tool described in “*Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report* (Ecology Publication #10-06-011, Olympia, WA, March 2012, or as revised) consistent with Subsection H of this chapter.

C. Compensating for Lost or Affected Functions. Compensatory mitigation shall address the functions affected by the proposed project, with an intention to achieve functional equivalency or improvement of functions. The goal shall be for the compensatory mitigation to provide similar wetland functions as those lost, except when either:

1. The lost wetland provides minimal functions, and the proposed compensatory mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal Washington state watershed assessment plan or protocol; or
2. Out-of-kind replacement of wetland type or functions will best meet watershed goals formally identified by the City, such as replacement of historically diminished wetland types.

D. Preference of Mitigation Actions. Mitigation for lost or diminished wetland and buffer functions shall rely on the types below in the following order of preference:

1. Restoration (re-establishment and rehabilitation) of wetlands:

- a. The goal of re-establishment is to return natural or historic functions to a former wetland. Re-establishment results in a gain in wetland acres (and functions). Activities may include removing fill material, plugging ditches, or breaking drain tiles.

- b. The goal of rehabilitation is to repair natural or historic functions of a degraded wetland. Rehabilitation results in a gain in wetland function but does not result in a gain in wetland acres. For example, activities which reconnect wetlands and floodplains or restore hydrology to a partially drained wetland.
2. Creation (establishment) of wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of non-native species. Establishment results in a gain in wetland acres. This should be attempted only when there is an adequate source of water and it can be shown that the surface and subsurface hydrologic regime is conducive to the wetland community that is anticipated in the design.
- a. If a site is not available for wetland restoration to compensate for expected wetland and/or buffer impacts, the approval authority may authorize creation of a wetland and buffer upon demonstration by the applicant's qualified wetland scientist that:
 - i. The hydrology and soil conditions at the proposed mitigation site are conducive for sustaining the proposed wetland and that creation of a wetland at the site will not likely cause hydrologic problems elsewhere;
 - ii. The proposed mitigation site does not contain invasive plants or noxious weeds in such abundance that they cannot be eradicated or controlled to the degree necessary to meet acceptable performance standards;
 - iii. Adjacent land uses and site conditions do not jeopardize the viability of the proposed wetland and buffer (e.g., due to the presence of invasive plants or noxious weeds, stormwater runoff, noise, light, or other impacts); and
 - iv. The proposed wetland and buffer will eventually be self-sustaining with little or no long-term maintenance.
3. Enhancement of significantly degraded wetlands in combination with restoration or creation. Enhancement should be part of a mitigation package that includes replacing the altered area and meeting appropriate ratio requirements. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention, or wildlife habitat. Enhancement alone will result in a loss of wetland acreage and is less effective at replacing the functions lost. Applicants proposing to enhance wetlands or associated buffers shall demonstrate:
- a. How the proposed enhancement will increase the wetland's/buffer's functions;
 - b. How this increase in function will adequately compensate for the impacts; and

c. How all other existing wetland functions at the mitigation site will be protected.

4. Preservation. Preservation of high-quality, wetlands as compensation is generally acceptable when done in combination with restoration, creation, or enhancement, provided that a minimum of 1:1 acreage replacement is provided by re-establishment or creation. Ratios for preservation in combination with other forms of mitigation generally range from 10:1 to 20:1, as determined on a case-by-case basis, depending on the quality of the wetlands being altered and the quality of the wetlands being preserved.

Preservation of high-quality, at-risk wetlands and habitat may be considered as the sole means of compensation for wetland impacts when the following criteria are met:

- a. The area proposed for preservation is of high quality. The following features may be indicative of high-quality sites:
 - i. Category I or II wetland rating (using the wetland rating system for western Washington)
 - ii. Rare wetland type (for example, bogs, mature forested wetlands, estuarine wetlands)
 - iii. The presence of habitat for priority or locally important wildlife species.
 - iv. Priority sites in an adopted watershed plan.
- b. Wetland impacts will not have a significant adverse impact on habitat for listed fish, or other ESA listed species.
- c. There is no net loss of habitat functions within the watershed or basin.
- d. Mitigation ratios for preservation as the sole means of mitigation shall generally start at 20:1. Specific ratios should depend upon the significance of the preservation project and the quality of the wetland resources lost.
- e. Permanent preservation of the wetland and buffer will be provided through a conservation easement or tract held by a land trust.
- f. The impact area is small (generally $<1/2$ acre) and/or impacts are occurring to a low-functioning system (Category III or IV wetland).

All preservation sites shall include buffer areas adequate to protect the habitat and its functions from encroachment and degradation.

E. Location of Compensatory Mitigation. Compensatory mitigation actions shall be conducted within the same sub-drainage basin and on the site of the alteration except when all of paragraphs 1-4 below apply. In that case, mitigation may be allowed off-site within the subwatershed of the impact site. When considering off-site mitigation, preference should be

given to using alternative mitigation, such as a mitigation bank, an in-lieu fee program, or advance mitigation.

1. There are no reasonable opportunities on site or within the sub-drainage basin (e.g., on-site options would require elimination of high-functioning upland habitat), or opportunities on site or within the sub-drainage basin do not have a high likelihood of success based on a determination of the capacity of the site to compensate for the impacts. Considerations should include: anticipated replacement ratios for wetland mitigation, buffer conditions and proposed widths, available water to maintain anticipated hydrogeomorphic classes of wetlands when restored, proposed flood storage capacity, and potential to mitigate riparian fish and wildlife impacts (such as connectivity);
2. On-site mitigation would require elimination of high-quality upland habitat.
3. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the altered wetland.
4. Off-site locations must be in the same sub-drainage basin unless:
 - a. Established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another sub-drainage basin or
 - b. Credits from a state-certified wetland mitigation bank are used as compensation, and the use of credits is consistent with the terms of the certified bank instrument;
 - c. Fees are paid to an approved in-lieu fee program to compensate for the impacts.

The design for the compensatory mitigation project must be appropriate for its location (i.e., position in the landscape). Therefore, compensatory mitigation should not result in the creation, restoration, or enhancement of an atypical wetland. An atypical wetland refers to a compensation wetland (e.g., created or enhanced) that does not match the type of existing wetland that would be found in the geomorphic setting of the site (i.e., the water source(s) and hydroperiod proposed for the mitigation site are not typical for the geomorphic setting). Likewise, it should not provide exaggerated morphology or require a berm or other engineered structures to hold back water.

F. Timing of Compensatory Mitigation. Compensatory mitigation projects should be completed prior to activities that will disturb wetlands. At a minimum, compensatory mitigation must be completed immediately following disturbance and prior to use or occupancy of the action or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.

1. The Mayor or designee may authorize a one-time temporary delay in completing construction or installation of the compensatory mitigation when the applicant provides a written explanation from a qualified wetland professional as to the rationale for the delay. An appropriate rationale would include identification of the environmental conditions that could produce a high probability of failure or significant construction difficulties (e.g., project delay lapses past a fisheries window, or installing plants should be delayed until the dormant season to ensure greater survival of installed materials). The delay shall not create or perpetuate hazardous conditions or environmental damage or degradation, and the delay shall not be injurious to the health, safety, or general welfare of the public. The request for the temporary delay must include a written justification that documents the environmental constraints that preclude implementation of the compensatory mitigation plan. The justification must be verified and approved by the City.

Table 16.18B.060.1 Wetland Mitigation Ratios¹:

Category and Type of Wetland	Creation or Re-establishment	Rehabilitation	Enhancement
Category I: Bog, Wetland of High Conservation Value	Not considered possible	Case by case	Case by case
Category I: Mature Forested	6:1	12:1	24:1
Category I: Based on functions	4:1	8:1	16:1
Category II	3:1	6:1	12:1
Category III	2:1	4:1	8:1
Category IV	1.5:1	3:1	6:1

Buffer Mitigation Ratios. Impacts to buffers shall be mitigated at a 1:1 ratio. Compensatory buffer mitigation shall replace those buffer functions lost from development.

G. Credit/Debit Method. As an alternative to the mitigation ratios found in the joint guidance “*Wetland Mitigation in Washington State Parts I and II*” (Ecology Publication #06-06-011a-b, Olympia, WA, March, 2006), the Mayor or designee may allow mitigation based on the “credit/debit” method developed by the Department of Ecology in “*Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report*,” (Ecology Publication #10-06-011, Olympia, WA, March 2012, or as revised).

H. Compensatory Mitigation Plan. When a project involves wetland and/or buffer impacts, a compensatory mitigation plan prepared by a qualified professional is required and must meet the following minimum standards:

1. Wetland Critical Area Report. A critical area report for wetlands must accompany or be included in the compensatory mitigation plan and include the minimum parameters described in *Minimum Standards for Wetland Reports* (Section 16.18A.210) of this chapter.

2. Compensatory Mitigation Report. The report must include a written report and plan sheets. Full guidance can be found in *Wetland Mitigation in Washington State– Part 2: Developing Mitigation Plans (Version 1)* (Ecology Publication #06-06-011b, Olympia, WA, March 2006 or as revised).
 - a. The written report must contain, at a minimum:
 - i. The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the compensatory mitigation report; a description of the proposal; a summary of the impacts and proposed compensation concept; identification of all the local, state, and/or federal wetland-related permit(s) required for the project; and a vicinity map for the project.
 - ii. Description of how the project design has been modified to avoid, minimize, or reduce adverse impacts to wetlands.
 - iii. Description of the existing wetland and buffer areas proposed to be altered. Include acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding lands uses, and functions. Also describe impacts in terms of acreage by Cowardin classification, hydrogeomorphic classification, and wetland rating, based on *Wetland Ratings* (16.18B.010) of this chapter.
 - iv. Description of the compensatory mitigation site, including location and rationale for selection. Include an assessment of existing conditions: acreage (or square footage) of wetlands and uplands, water regime, sources of water, vegetation, soils, landscape position, surrounding land uses, and functions. . Estimate future conditions in this location if the compensation actions are NOT undertaken (i.e., how would this site progress through natural succession?).
 - v. A description of the proposed actions for compensation of wetland and upland areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classification, and categories of wetlands.

- vi. A description of the proposed mitigation construction activities and timing of activities.
 - vii. A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs (for remaining wetlands and compensatory mitigation wetlands).
 - viii. A bond estimate for the entire compensatory mitigation project, including the following elements: site preparation, plant materials, construction materials, installation oversight, maintenance twice per year for up to five (5) years, annual monitoring field work and reporting, and contingency actions for a maximum of the total required number of years for monitoring.
 - ix. Proof of establishment of Notice on Title for the wetlands and buffers on the project site, including the compensatory mitigation areas.
- b. The scaled plan sheets for the compensatory mitigation must contain, at a minimum:
- i. Surveyed edges of the existing wetland and buffers, proposed areas of wetland and/or buffer impacts, location of proposed wetland and/or buffer compensation actions.
 - ii. Existing topography, ground-proofed, at two-foot contour intervals in the zone of the proposed compensation actions if any grading activity is proposed to create the compensation area(s). Also existing cross-sections of on-site wetland areas that are proposed to be altered, and cross-section(s) (estimated one-foot intervals) for the proposed areas of wetland or buffer compensation.
 - iii. Surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created, or restored compensatory mitigation areas. Also, illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions.
 - iv. Conditions expected from the proposed actions on site, including future hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes.
 - v. Required wetland buffers for existing wetlands and proposed compensation areas. Also, identify any zones where buffers are proposed to be reduced or enlarged outside of the standards identified in this chapter.
 - vi. A plant schedule for the compensation area, including all species by proposed community type and water regime, size and type of plant material to be installed,

spacing of plants, typical clustering patterns, total number of each species by community type, timing of installation.

vii. Performance standards (measurable standards reflective of years post-installation) for upland and wetland communities, monitoring schedule, and maintenance schedule and actions by each biennium.

K. Protection of the Mitigation Site. The area where the mitigation occurred and any associated buffer shall be located in a critical area tract or a conservation easement consistent with Section 16.18A.040

L. Monitoring. Mitigation monitoring shall be required for a period necessary to establish that performance standards have been met, but not for a period less than five years. If a scrub-shrub or forested vegetation community is proposed, monitoring may be required for ten years or more. The project mitigation plan shall include monitoring elements that ensure certainty of success for the project's natural resource values and functions. If the mitigation goals are not obtained within the initial five-year period, the applicant remains responsible for restoration of the natural resource values and functions until the mitigation goals agreed to in the mitigation plan are achieved.

M. Wetland Mitigation Banks.

1. Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:
 - a. The bank is certified under state rules;
 - b. The Mayor or designee determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and
 - c. The proposed use of credits is consistent with the terms and conditions of the certified bank instrument.
2. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the certified bank instrument.
3. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the certified bank instrument. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin for specific wetland functions.

N. In-Lieu Fee. To aid in the implementation of off-site mitigation, the City may develop an in-lieu fee program. This program shall be developed and approved through a public process and be consistent with federal rules, state policy on in-lieu fee mitigation, and state water quality regulations. An approved in-lieu-fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor, a governmental or non-profit natural resource management entity. Credits from an approved in-lieu-fee program may be used when paragraphs 1-6 below apply:

1. The approval authority determines that it would provide environmentally appropriate compensation for the proposed impacts.
2. The mitigation will occur on a site identified using the site selection and prioritization process in the approved in-lieu-fee program instrument.
3. The proposed use of credits is consistent with the terms and conditions of the approved in-lieu-fee program instrument.
4. Land acquisition and initial physical and biological improvements of the mitigation site must be completed within three years of the credit sale.
5. Projects using in-lieu-fee credits shall have debits associated with the proposed impacts calculated by the applicant's qualified wetland scientist using the method consistent with the credit assessment method specified in the approved instrument for the in-lieu-fee program.
6. Credits from an approved in-lieu-fee program may be used to compensate for impacts located within the service area specified in the approved in-lieu-fee instrument.

O. Advance Mitigation. Mitigation for projects with pre-identified impacts to wetlands may be constructed in advance of the impacts if the mitigation is implemented according to federal rules, state policy on advance mitigation, and state water quality regulations.

P. Alternative Mitigation Plans. The Mayor or designee may approve alternative critical areas mitigation plans that are based on best available science. Alternative mitigation proposals must provide an equivalent or better level of protection of critical area functions and values than would be provided by the strict application of this chapter.

The Mayor or designee shall consider the following for approval of an alternative mitigation proposal:

1. The proposal uses a watershed approach consistent with *Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington)* (Ecology Publication #09-06-32, Olympia, WA, December 2009), or any subsequent update.

2. Creation or enhancement of a larger system of natural areas and open space is preferable to the preservation of many individual habitat areas.
3. Mitigation according to Section E is not feasible due to site constraints such as parcel size, stream type, wetland category, or geologic hazards.
4. There is clear potential for success of the proposed mitigation at the proposed mitigation site.
5. The plan shall contain clear and measurable standards for achieving compliance with the specific provisions of the plan. A monitoring plan shall, at a minimum, meet the provisions in Section I.
6. The plan shall be reviewed and approved as part of overall approval of the proposed use.
7. A wetland of a different type is justified based on regional needs or functions and values; the replacement ratios may not be reduced or eliminated unless the reduction results in a preferred environmental alternative.
8. Mitigation Guarantees shall meet the minimum requirements as outlined in Chapter 16.18A.410
9. Qualified professionals in each of the critical areas addressed shall prepare the plan.
10. The City may consult with agencies with expertise and jurisdiction over the resources during the review to assist with analysis and identification of appropriate performance measures that adequately safeguard critical areas.

16.18B.080 Unauthorized Alterations and Enforcement

- A. When a wetland or its buffer has been altered in violation of this chapter, all ongoing development work shall stop, and the critical area shall be restored. The City shall have the authority to issue a “stop-work” order to cease all ongoing development work and order restoration, rehabilitation, or replacement measures at the owner’s or other responsible party’s expense to compensate for violation of provisions of this chapter.
- B. Requirement for Restoration Plan. All development work must remain stopped until a restoration plan is prepared and approved by the City. Such a plan must be prepared by a qualified professional using the currently accepted scientific principles and shall describe how the actions proposed meet the minimum requirements of this Chapter. The Mayor or designee shall, at the violator’s expense, seek expert advice in determining the adequacy of the plan. Inadequate plans will be returned to the applicant or violator for revision and resubmittal.

C. Minimum Performance Standards for Restoration. The following minimum performance standards shall be met for the restoration of a wetland, provided that if the violator can demonstrate that greater functions and habitat values can be obtained, these standards may be modified:

1. The historic structure, functions, and values of the affected wetland shall be restored, including water quality and habitat functions.
2. The historic soil types and configuration shall be restored to the extent practicable.
3. The wetland and buffers shall be replanted with native vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities. The historic functions and values should be replicated at the location of the alteration.
4. Information demonstrating compliance with other applicable provisions of this chapter shall be submitted to the Mayor or designee.

D. Site Investigations. The Mayor designee is authorized to make site inspections and take such actions as are necessary to enforce this chapter. The Mayor designee shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property.

Chapter 16.18C

Fish and Wildlife Habitat Conservation Areas

Designation and Mapping

16.18C.010 Designation of Fish and Wildlife Habitat Conservation Areas

Additional Report Requirements – Habitat Conservation Areas

16.18C.020 Critical Area Report – Additional Requirements for Habitat Conservation Areas

Performance Standards

16.18C.030 Performance Standards – General Requirements

16.18C.040 Performance Standards – Specific Habitats

16.18C.010 Designation of Fish and Wildlife Habitat Conservation Areas

A. Fish and wildlife habitat conservation areas include:

1. Areas with Which State or Federally Designated Endangered, Threatened, and Sensitive Species Have a Primary Association.⁹
 - a. Federally designated endangered and threatened species are those fish and wildlife species identified by the US Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The US Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current listing status.
 - b. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the state of Washington identified by the Washington Department of Fish and Wildlife, that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered,

⁹ See WAC 365-190-130

threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species) and WAC 232-12-011 (state threatened and sensitive species). The state Department of Fish and Wildlife maintains the most current listing and should be consulted for current listing status.

2. State Priority Habitats and Areas Associated with State Priority Species¹⁰. Priority habitats and species are considered to be priorities for conservation and management. Priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type or dominant plant species, a described successional stage, or a specific structural element. Priority habitat and species are identified by the state Department of Fish and Wildlife.
3. Habitats and Species of Local Importance.¹¹ Habitats and species of local importance are those identified by the city, including but not limited to those habitat and species that, due to their population status or sensitivity to habitat manipulation, warrant protection. Habitats may include a seasonal range or habitat element with which a species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.
 - a. Designation Process. The city shall accept and consider nominations for habitat areas and species to be designated as locally important on an annual basis.
 - i. Habitats and species to be designated shall exhibit the following characteristics:
 - (a) Local populations of native species are in danger of extirpation based on existing trend:
 1. Local populations of native species that are likely to become endangered; or

¹⁰ See WAC 365-190-130

¹¹ See WAC 365-190-030(19)

2. Local populations of native species that are vulnerable or declining;¹²
 - (b) The species or habitat has recreation, commercial, game or tribal, or other special value;
 - (c) Long-term persistence of a species is dependent on the protection, maintenance, and/or restoration of the nominated habitat.
 - (d) Protection by other county, state, or federal policies, laws, regulations, or non-regulatory tools is not adequate to prevent degradation of the species or habitat in the city; and
 - (e) Without protection, there is a likelihood that species or habitat will be diminished over the long term.
- ii. Areas nominated to protect a particular habitat or species must represent either high-quality native habitat or habitat that has a high potential to recover to a suitable condition and which is of limited availability, highly vulnerable to alteration, or provides landscape connectivity which contributes to the integrity of the surrounding landscape.
- iii. Habitats and species may be nominated for designation by any person.
- iv. The nomination should indicate whether specific habitat features are to be protected (for example, nest sites, breeding areas, and nurseries), or whether the habitat or ecosystem is being nominated in its entirety.
- v. The nomination may include management strategies for the species or habitats. Management strategies must be supported by the best available science, and where restoration of habitat is proposed, a specific plan for restoration must be provided prior to nomination.

¹² See WAC 232-12-297

- vi. The Mayor or designee shall determine whether the nomination proposal is complete, and if complete, shall evaluate it according to the characteristics enumerated in subsection (i) and make a recommendation to the city council based on those findings.
 - vii. The city council shall hold a public hearing for proposals found to be complete in accordance with Chapter 16.18.850 based on the characteristics enumerated in subsection (i).
 - viii. Following the city council decision, shall designate a Habitat or Species of Local Importance.
 - ix. Approved nominations will be subject to the provisions of this chapter.
4. Naturally Occurring Ponds Under Twenty Acres.¹³ Naturally occurring ponds are those ponds under twenty (20) acres and their submerged aquatic beds that provide fish and wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction ponds, and landscape amenities, unless such artificial ponds were intentionally created for mitigation.
 5. Waters of the State¹⁴. Waters of the state include lakes, rivers, ponds, stream, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington, as classified in WAC 222-16-030.
 6. Lakes, Ponds, Streams, and Rivers Planted With Game Fish by a Governmental or Tribal Entity.¹⁵
 7. State Natural Area Preserves and Natural Resource Conservation Areas.¹⁶ Natural area preserves and natural resource conservation areas are defined,

¹³ See WAC 365-190-130(4)(e).

¹⁴ See WAC 365-190-130(4)(f).

¹⁵ See WAC 365-190-130(4)(g).

¹⁶ See WAC 365-190-130(4)(h).

established, and managed by the Washington State Department of Natural Resources.

8. Area of Rare Plant Species and High Quality Ecosystems. Areas of rare plant species and high quality ecosystems are identified by the Washington State Department of Natural Resources through the Natural Heritage Program.

9. Land Useful or Essential for Preserving Connections Between Habitat Blocks and Open Spaces.¹⁷

B. All areas within the city meeting one or more of these criteria, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this chapter and shall be managed consistent with the best available science, such as the Washington Department of Fish and Wildlife's Management Recommendations for Priority Habitat and Species.

C. Mapping. The approximate location and extent of fish and wildlife habitat conservation areas are shown on the critical area maps adopted by the city, as most recently updated. The following critical area maps are hereby adopted:

1. Washington State Department of Fish and Wildlife Priority Habitat and Species maps;
2. Washington State Department of Natural Resources, Official Water Type Reference maps, as amended;
3. Washington State Department of Natural Resources Natural Heritage Program mapping data;
4. Anadromous and resident salmonid distribution maps contained in the Habitat Limiting Factors reports published by the Washington Conservation Commission, and in WDFW's Salmonscape;
5. Washington State Department of Natural Resources State Natural Area Preserves and Natural Resource Conservation Area maps; and

These maps are to be used as a guide for the city, project applicants, and/or property owners and should be continuously updated as new critical areas are identified. They are references only and do not provide a final critical area designation.

¹⁷ See WAC 365-190-130(3)(a)(i).

16.18C.020 Critical Area Report – Additional Requirements for Fish and Wildlife Habitat Conservation Areas

In addition to the general critical area report requirements of [Section 16.18A.220], s for fish and wildlife habitat conservation areas must meet the requirements of this Section. Critical area reports for two or more types of critical areas must meet the report requirements for each relevant type of critical area.

- A. Preparation by a Qualified Professional. A critical areas report for a fish and wildlife habitat conservation area shall be prepared by a qualified professional who is a biologist with experience preparing reports for the relevant type of habitat.
- B. Areas Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for fish and wildlife habitat conservation areas:
 - 1. The project area of the proposed activity;
 - 2. All fish and wildlife habitat conservation areas and recommended buffers within three hundred (300) feet of the project area; and
 - 3. All floodplains, other critical areas, and related buffers within three hundred (300) feet of the project area.
- C. Habitat Assessment. A habitat assessment is an investigation of the project area and its immediate surroundings to evaluate the potential presence or absence of state or federally designated endangered, threatened, and sensitive species and their habitat. A Habitat Assessment report for a fish and wildlife habitat conservation area shall contain an assessment of habitats including the following site- and proposal-related information at a minimum:
 - 1. Detailed description of vegetation on and adjacent to, and within 300 feet of the project area, including vegetation species, vegetation structure (e.g. tree height and basal diameter), degree of habitat fragmentation, vegetative diversity including extent and nature of invasive species presence, and presence and nature of special habitat features such as snags, downed logs, cavities, beaver dams, lodges, or forage areas, and/or amphibian breeding habitat;
 - 2. Identification of any species of local importance priority species, or endangered, threatened, sensitive, proposed, or candidate species that have a primary association with habitat on, adjacent to, and within 300 feet of the

project area, and assessment of potential project impacts to the use of the site by the species;

3. A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to, and within 300 feet of the project area;
4. A detailed discussion of the direct and indirect potential impacts on habitat by the project, including potential impacts to water quality or other critical areas that provide habitat functions (e.g., wetlands or forested slopes);
5. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing habitats and restore any habitat that was degraded prior to the current proposed land use activity and to be conducted in accordance with *Mitigation Sequencing* [Section 16.18A.250]]; and
6. A discussion of ongoing management practices that will protect habitat after the project site has been developed, including proposed monitoring and maintenance programs.

D. Additional Information May Be Required. When appropriate due to the type of habitat or species present or the project area conditions, the Mayor or designee may also require the Habitat Assessment include:

1. An evaluation by an independent qualified professional regarding the applicant's analysis and the effectiveness of any proposed mitigating measures or programs, to include any recommendations as appropriate;
2. A request for consultation with the Washington Department of Fish and Wildlife and/or the local Native American Indian Tribe or other appropriate entity or agency; and
3. Detailed surface and subsurface hydrologic features both on and adjacent to the site.

16.18C. 030 Performance Standards for Fish and Wildlife Habitat Conservation Areas – General Requirements

A. Alterations. A fish and wildlife habitat conservation area may be altered only if the proposed alteration of the habitat and the mitigation proposed does not degrade the

quantitative and qualitative functions and values of the habitat. All new structures and land alterations shall be prohibited from fish and wildlife habitat conservation areas, except in accordance with this chapter.

- B. Non-indigenous Species. No plant or animal species not indigenous to the Pacific Northwest region shall be introduced into a fish and wildlife habitat conservation area unless authorized by a state or federal permit or approval.
- C. Mitigation and Contiguous Corridors.¹⁸ Mitigation sites shall be located to preserve or achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved critical area report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same subbasin and is of the same type of aquatic habitat as the area disturbed.
- D. Approvals of Activities. The Mayor or designee shall condition approvals of activities allowed within or adjacent to a fish and wildlife habitat conservation area or its buffer, as necessary to minimize or mitigate any potential adverse impacts. Conditions shall be based on the best available science and may include, but are not limited to, the following:
 - 1. Establishment of buffer zones;
 - 2. Preservation of critically important vegetation and/or habitat features such as snags and downed wood;
 - 3. Limitation of access to the habitat area, including signage and fencing to deter unauthorized human access;
 - 4. Seasonal restriction of construction activities;
 - 5. Establishment of a duration and timetable for periodic review of mitigation activities; and
 - 6. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.
- E. Mitigation and Equivalent or Greater Biological Functions. Mitigation of alterations to fish and wildlife habitat conservation areas shall achieve equivalent or greater biologic and hydrologic functions and shall include mitigation for adverse impacts

¹⁸ See WAC 365-190-130(3)(a)(i).

upstream and downstream of the development proposal site. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.

F. Approvals and the Best Available Science. Any approval of alterations or impacts to a fish and wildlife habitat conservation area shall be supported by the best available science.

G. Fish and Wildlife Habitat Conservation Area Buffers

1. Establishment of Buffers.¹⁹ The Mayor designee shall require the establishment of buffer areas (as described below) for activities adjacent to fish and wildlife habitat conservation areas. Buffers shall consist of an undisturbed area of native vegetation, or areas with non-native species identified for restoration, established to protect the integrity, functions, and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby and shall be consistent with the management recommendations issued by the Washington Department of Fish and Wildlife. Habitat conservation areas and their buffers shall be preserved in perpetuity through the use of native growth protection areas and critical area tracts in accordance with Section 16.18A.390
2. Seasonal Restrictions. When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Larger buffers may be required and activities may be further restricted during the specified season.
3. Habitat Buffer Averaging. The Mayor or designee may allow the recommended fish and wildlife habitat conservation area buffer width to be reduced in accordance with a critical area report, the best available science, and the management recommendations issued by the Washington Department of Fish and Wildlife, only if:
 - a. It will not reduce critical area or habitat functions;
 - b. It will not adversely affect salmonid habitat;

¹⁹ See WAC 365-190-130(3)(a)(v).

- c. It will provide additional natural resource protection, such as buffer enhancement;
- d. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer; and
- e. The buffer area width is not reduced by more than twenty-five percent (25%) in any location.

H. Signs and Fencing of Fish and Wildlife Habitat Conservation Areas

1. Temporary Markers. The outer perimeter of the fish and wildlife habitat conservation area or buffer and the limits of those areas to be disturbed pursuant to an approved permit or authorization shall be marked in the field in such a way as to ensure that no unauthorized intrusion will occur and verified by the Mayor or designee prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.
2. Permanent Signs. As a condition of any permit or authorization issued pursuant to this chapter, the Mayor or designee may require that applicant to install permanent signs along the boundary of a fish and wildlife habitat conservation area or buffer.
 - a. Permanent signs shall be made of a metal face and attached to a metal post or another material of equal durability. Signs must be posted at an interval of one per lot or every fifty (50) feet, whichever is less and must be maintained by the property owner in perpetuity. The sign shall be worded as follows or with alternative language approved by the Mayor or designee:

**Habitat Conservation Area
Do Not Disturb
Contact City of Algona at 253-833-2897
Regarding Uses and Restriction**

- b. The provisions of subsection (a) may be modified by the Mayor or designee as necessary to assure protection of sensitive features or wildlife.

3. Fencing

- a. The Mayor or designee shall determine if fencing is necessary to protect the functions and values of the critical area. If found to be necessary, the Mayor or designee shall condition any permit or authorization issued pursuant to this chapter to require the applicant to install a permanent fence at the edge of the fish and wildlife habitat conservation area or buffer, when fencing could act to prevent future impacts to the fish and wildlife habitat conservation area.
 - b. The applicant shall be required to install a permanent fence around the fish and wildlife habitat conservation area or buffer when domestic grazing animals are present or may be introduced on site.
 - c. Fencing installed as part of a proposed activity or as required in this Subsection shall be design so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes habitat impacts.
- I. Subdivisions. The subdivision and short subdivision of land in fish and wildlife habitat conservation areas and associated buffers is subject to the following:
1. Land that is located wholly within a fish and wildlife habitat conservation area or its buffer may not be subdivided.
 2. Land that is located partially within a fish and wildlife habitat conservation area or its buffer may be divided provided that the developable portion of each new lot and its access is located outside of the fish and wildlife habitat conservation area or its buffer and meets the minimum lot size requirements of Title 22.
 3. Access roads and utilities serving the proposed may be permitted within the fish and wildlife habitat conservation area and associated buffers only if the city determines that no other feasible alternative exists and when consistent with this chapter.

16.18C.040 Performance Standards – Specific Habitats

A. Habitat for Endangered, Threatened, and Sensitive Species

1. No development shall be allowed within a fish and wildlife habitat conservation area or buffer with which state or federally endangered, threatened, or sensitive species have a primary association, except that which is provided for

by a management plan established by the Washington Department of Fish and Wildlife or applicable state or federal agency.

2. Whenever activities are proposed adjacent to a fish and wildlife habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and approved by the city. Approval for alteration of land adjacent to a fish and wildlife habitat conservation area or its buffer shall not occur prior to consultation with the Washington Department of Fish and Wildlife for animal species, the Washington State Department of Natural Resources for plant species, and other appropriate federal or state agencies, such as the National Marine Fisheries Service for listed fish species.
3. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292). Whenever activities are proposed adjacent to a verified nest territory or communal roost, a Habitat Management Plan shall be developed by a qualified wildlife professional. Activities are defined as adjacent to bald eagle sites when they are within eight hundred (800) feet of a site or within one half mile (2,640 feet) and in a shoreline foraging area. The city shall verify the location of eagle management areas for each proposed activity. Approval of the activity shall not occur prior to approval of the Habitat Management Plan by the Washington Department of Fish and Wildlife.

B. Salmonid Fish Habitat

1. All activities, uses, and alterations proposed to be located in water bodies used by salmonid fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of salmonid fish habitat, including, but not limited to, adhering to the following standards:
 - a. Activities shall be timed to occur only during the allowable work window as designated by the Washington Department of Fish and Wildlife for the applicable species;

- b. Alternative alignment or location for the activity shall be considered and if determined not to be feasible, this determination shall be documented for review by the city;
 - c. The activity is designed so that it will not degrade the functions or values of the fish habitat or other critical areas;
 - d. Any impacts to the functions or values of the fish and wildlife habitat conservation area are mitigated in accordance with an approved critical area report.
 2. Structures that prevent the migration of salmonids shall not be allowed in any portion of water bodies currently or historically used by salmonid fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.
 3. Fills shall not adversely impact salmonid fish or their habitat or shall mitigate any unavoidable impacts and shall only be allowed for a water-dependent use.
- C. Wetland Habitats. All proposed activities within or adjacent to fish and wildlife habitat conservation areas containing wetlands shall conform to the wetland development performance standards set forth in *Wetlands* (Chapter 16.18B). If non-wetlands habitat and wetlands are present at the same location, the provisions of this chapter or the Wetlands chapter, whichever provides greater protection to the habitat, apply.
- D. Riparian Habitat Areas. Unless otherwise allowed in this chapter, all structures and activities shall be located outside of a riparian habitat area.
 1. Establishment of Riparian Habitat Areas. Riparian habitat areas shall be established for habitats that include aquatic and terrestrial ecosystems that mutually benefit each other and that are located adjacent to rivers, perennial or intermittent streams, seeps, and springs.

Riparian Habitat Areas

Water Type (1)	Width of Riparian Habitat Area
Type 1 and 2; or shorelines of the state, or shorelines of statewide significance	250 feet
Type 3; or other perennial or fish bearing water, 5-20 feet wide	200 feet
Type 3; or other perennial or fish bearing streams <5 feet wide	150 feet
Type 4 and 5; or intermittent streams and washes with low mass wasting potential ²⁰	150 feet
Type 4 and 5; or intermittent streams and washes with high mass wasting potential ²¹	225 feet

2. Riparian Habitat Area Widths. Riparian habitat area widths are shown in the table above. A riparian habitat area shall have the width indicated, unless a greater width is required pursuant to Subsection (3) or because of a different, overlapping critical area buffer, or a lesser width is allowed pursuant to Subsection (4). Widths shall be measured outward in each direction, on the horizontal plane, from the ordinary high water mark, or from the top of bank, if the ordinary high water mark cannot be identified. Riparian habitat areas should be sufficiently wide to achieve the full range of riparian and aquatic ecosystem functions, which include but are not limited to protection of instream fish habitat through control of temperature and sedimentation in streams; preservation of fish and wildlife habitat; and connection of riparian wildlife habitat to other habitats.

²⁰ Mass wasting is a general term for a variety of processes by which large masses of rock or earth material are moved down slope by gravity, either slowly or quickly.

²¹ See previous footnote.

3. Increased Riparian Habitat Area Widths. The recommended riparian habitat area widths shall be increased, as follows:
 - a. When the Mayor or designee determines that the recommended width is insufficient to prevent habitat degradation and to protect the structure and functions of the habitat area;
 - b. When a channel migration zone is present, the riparian habitat area width shall be measured from the outer edge of the channel migration zone;
 - c. When the riparian habitat area is in an area of high blowdown potential, the riparian habitat area width shall be expanded an additional fifty (50) feet on the windward side; or
 - d. When the riparian habitat area is within an erosion or landslide hazard area, or buffer, the riparian habitat area width shall be the recommended distance, or the erosion or landslide hazard area or buffer, whichever is greater.
 - e. When the riparian habitat area is within, overlaps with, or is adjacent to a wetland, or its buffer, the riparian habitat area width shall be the recommended distance, or wetland or buffer width, whichever is greater.
4. Riparian Habitat Area Width Averaging. The Mayor or designee may allow the recommended riparian habitat area width to be reduced in accordance with a critical area report only if:
 - a. The width reduction will not reduce stream or habitat functions, including those of nonfish habitat;
 - b. The width reduction will not degrade the habitat, including habitat for salmonid fish;
 - c. The proposal will provide additional habitat protection;
 - d. The total area contained in the riparian habitat area of each stream on the development proposal site is not decreased;
 - e. The recommended riparian habitat area width is not reduced by more than twenty-five percent (25%) in any one location;

- f. The width reduction will not be located within another critical area or associated buffer; and
 - g. The reduced riparian habitat area width is supported by the best available science.
 - 5. Riparian Habitat Mitigation. Mitigation of adverse impacts to riparian habitat areas shall result in equivalent functions and values on a per function basis, be located as near the alteration as feasible, and be located in the same sub-drainage basin as the habitat impacted.
 - 6. Alternative Mitigation for Riparian Habitat Areas. The performance standards set forth in this Subsection may be modified at the city's discretion if the applicant demonstrates that greater habitat functions, on a per function basis, can be obtained in the affected sub-drainage basin as a result of alternative mitigation measures.

E. Aquatic Habitat. The following specific activities may be permitted within a riparian habitat area, pond, lake, water of the state, watercourse, or associated buffer when the activity complies with all of the standards of this chapter. The standards that provide the most protection to protected habitat and species shall apply.

 - 1. Clearing and Grading. When clearing and grading is permitted as part of an authorized activity or as otherwise allowed in these standards, the following shall apply:
 - a. Grading is allowed only during the dry season, which is typically regarded as beginning on May 1 and ending on October 1 of each year, provided that the city may extend or shorten the dry season on a case-by-case basis, determined based on actual weather conditions.
 - b. Filling or modifying a wetland or wetland buffer is permitted only if it is conducted as part of an approved wetland alteration.
 - c. The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, any soil disturbed shall be redistributed to other areas of the site, unless doing so would result in additional impacts to critical areas or high quality uplands that would otherwise remain undisturbed.

- d. The moisture-holding capacity of the topsoil layer shall be maintained by minimizing soil compaction or reestablishing natural soil structure and infiltrative capacity on all areas of the project area not covered by impervious surfaces.
 - e. Erosion and sediment control that meets or exceeds the standards set forth in AMC 13.46 shall be provided.
2. Streambank Stabilization. Streambank stabilization to protect new structures from future channel migration is not permitted except when such stabilization is achieved through bioengineering or soft armoring techniques in accordance with an approved critical area report.
3. Roads, Trails, Bridges, and Rights-of-Way. Construction of trails, roadways, and minor road bridging, less than or equal to thirty (30) feet wide, may be permitted in accordance with an approved critical area report subject to the following standards:
- a. There is no other feasible alternative route with less impact on the environment;
 - b. The crossing minimizes interruption of downstream movement of wood and gravel;
 - c. Roads in riparian habitat areas or their buffers shall not run parallel to the watercourse;
 - d. Trails shall be located on the outer edge of the riparian area or buffer, except for limited viewing platforms and crossings;
 - e. Crossings, where necessary, shall only occur as near to perpendicular with the water course as possible and shall cross at the shortest distance feasible across the water body;
 - f. Mitigation for impacts is provided pursuant to a mitigation plan of an approved critical area report;
 - g. Road bridges are designed according to the Washington Department of Fish and Wildlife *2013 Water Crossing Design Guidelines*, and the Northwest Region National Marine Fisheries Service 2008 *Anadromous Salmonid Passage Facility Design*; and

7. Stormwater Conveyance Facilities. Conveyance structures may be permitted in accordance with an approved critical area report subject to the following standards:

- a. No other feasible alternatives with less impact exist;
- b. Mitigation for impacts is provided;
- c. Stormwater conveyance facilities shall incorporate fish habitat features;
and
- d. Vegetation shall be maintained and, if necessary, added adjacent to all open channels and ponds in order to retard erosion, filter out sediments, and shade the water.

8. On-Site Sewage Systems and Wells

- a. New on-site sewage systems and individual wells may be permitted in accordance with an approved critical area report only if accessory to an approved residential structure, for which it is not feasible to connect to a public sanitary sewer system.
- b. Repairs to failing on-site sewage systems associated with an existing structure shall be accomplished by utilizing one of the following methods that result in the least impact:
 - i. Connection to an available public sanitary sewer system;
 - ii. Replacement with a new on-site sewage system located in a portion of the site that has already been disturbed by development and is located landward as far as possible, provided the proposed sewage system is in compliance with the King County Health Department; or
 - iii. Repair to the existing on-site septic system.

Chapter 16.18D

Critical Aquifer Recharge Areas

Designation, Rating, and Mapping

16.18D.010 Critical Aquifer Recharge Areas Designation

16.18D.020 Aquifer Recharge Area Susceptibility Ratings

16.18D.030 Mapping of Critical Aquifer Recharge Areas

Allowed Activities – Critical Aquifer Recharge Areas

16.1D.040 Activities Allowed in Critical Aquifer Recharge Areas

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16.18D.050 Critical Area Report – Additional Requirements for Critical Aquifer Recharge Areas

Performance Standards – Critical Aquifer Recharge Areas

16.18D.060 Performance Standards – General Requirements

16.18D.070 Performance Standards – Specific Uses

Prohibited Uses

16.18D.080 Uses Prohibited From Critical Aquifer Recharge Areas

16.18D.010 Critical Aquifer Recharge Areas Designation

Critical aquifer recharge areas (CARAs) are those areas with a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). CARAs have prevailing geologic conditions associated with infiltration rates that create a high potential for contamination of ground water resources or contribute significantly to the replenishment of ground water. These areas include the following:

A. Wellhead Protection Areas. Wellhead protection areas may be defined by the boundaries of the ten (10) year time of ground water travel or boundaries established using alternate criteria approved by the Washington State Department of Health in those settings where ground water time of travel is not a reasonable delineation criterion, in accordance with WAC 246-290-135.

- B. Sole Source Aquifers. Sole source aquifers are areas that have been designated by the U.S. Environmental Protection Agency pursuant to the Federal Safe Water Drinking Act.
- C. Susceptible Ground Water Management Areas. Susceptible ground water management areas are areas that have been designated as moderately or highly vulnerable or susceptible in an adopted ground water management program developed pursuant to WAC 173-100.
- D. Special Protection Areas. Special protection areas are those areas defined below, pursuant to WAC 173-200-090:
 - (a) Groundwaters that support a beneficial use or an ecological system requiring more stringent criteria than drinking water standards;
 - (b) Groundwaters, including, but not limited to, recharge areas and wellhead protection areas, that are vulnerable to pollution because of hydrogeologic characteristics; and
 - (c) Sole source aquifer status by federal designation.
- E. Moderately or Highly Vulnerable Aquifer Recharge Areas. Aquifer recharge areas that are moderately or highly vulnerable to degradation or depletion because of hydrogeologic characteristics are those areas delineated by a hydrogeologic study prepared in accordance with the state Department of Ecology guidelines.
- F. Moderately or Highly Susceptible Aquifer Recharge Areas. Aquifer recharge areas moderately or highly susceptible to degradation or depletion because of hydrogeologic characteristics are those areas meeting the criteria established by the state Department of Ecology.

16.18D.020 Aquifer Recharge Area Susceptibility Ratings

Aquifer recharge areas shall be rated as having high, moderate, or low susceptibility based on soil permeability, geologic matrix, infiltration, and depth to water as determined by the criteria established by the state Department of Ecology.

16.18D.030 Mapping of Critical Aquifer Recharge Areas

- A. The approximate location and extent of critical aquifer recharge areas are shown on the adopted critical areas inventory maps.
- B. These maps are to be used as a guide for the city, project applicants, and/or property owners and may be continuously updated as new critical areas are identified. They are a reference and do not provide a final critical area designation.

16.18D.040 Activities Allowed in Critical Aquifer Recharge Areas

The following activities may not require submission of a critical area report for critical aquifer recharge areas:

- A. Construction of structures and improvements, including additions, resulting in less than five percent (5%) or 2,500 square feet (whichever is greater) total site impervious surface area that does not result in a change of use or increase the use of a hazardous substance.
- B. Development and improvement of parks, recreation facilities, open space, or conservation areas resulting in less than five percent (5%) total site impervious surface area that do not increase the use of a hazardous substance.
- C. On-site domestic septic systems releasing less than 14,500 gallons of effluent per day and that are limited to a maximum density of one (1) system per one (1) acre.²²

16.18D.050 Critical Area Report – Additional Requirements for Critical Aquifer Recharge Areas

In addition to the general critical area report requirements of Section 16.18A.220 , critical area reports for critical aquifer recharge areas must meet the requirements of this Section. Critical area reports for two or more types of critical areas must meet the report requirements for each relevant type of critical area.

- A. Preparation by a Qualified Professional. An aquifer recharge area critical area report shall be prepared by a qualified professional who is a hydrogeologist, geologist, or engineer, who is licensed in the state of Washington and has experience in preparing hydrogeologic assessments.
- B. Hydrogeologic Assessment. For all proposed activities to be located in a critical aquifer recharge area, a critical area report shall contain a level one (1) hydrogeological assessment. A level two (2) hydrogeologic assessment shall be required for any of the following proposed activities:
 - 1. Activities that result in five percent (5%) or more impervious site area;
 - 2. Activities that divert, alter, or reduce the flow of surface or ground waters, or otherwise reduce the recharging of the aquifer;

²² Maximum density of septic systems is based on *Guidance Document for the Establishment of Critical Aquifer Recharge Area Ordinances*, by the Washington State Department of Ecology, 2000, Publication #97-30.

3. The use of hazardous substances, other than household chemicals used according to the directions specified on the packaging for domestic applications;
4. The use of injection wells, including on-site septic systems, except those domestic septic systems releasing less than 14,500 gallons of effluent per day and that are limited to a maximum density of one (1) system per one (1) acre; or
5. Any other activity determined by the Mayor or designee likely to have an adverse impact on ground water quality or quantity or on the recharge of the aquifer.

C. Level One Hydrogeologic Assessment. A level one hydrogeologic assessment shall include the following site- and proposal-related information at a minimum:

1. Available information regarding geologic and hydrogeologic characteristics of the site including the surface location of all critical aquifer recharge areas located on site or immediately adjacent to the site, and permeability of the unsaturated zone;
2. Ground water depth, flow direction, and gradient based on available information;
3. Currently available data on wells and springs within 1,300 feet of the project area;
4. Location of other critical areas, including surface waters, within 1,300 feet of the project area;
5. Available historic water quality data for the area to be affected by the proposed activity; and
6. Best management practices proposed to be utilized.

D. Level Two Hydrogeologic Assessment. A level two hydrogeologic assessment shall include the following site- and proposal-related information at a minimum, in addition to the requirements for a level one hydrogeological assessment:

1. Historic water quality data for the area to be affected by the proposed activity compiled for at least the previous five (5) year period;
2. Ground water monitoring plan provisions;
3. Discussion of the effects of the proposed project on the ground water quality and quantity, including:
 - a. Predictive evaluation of ground water withdrawal effects on nearby wells and surface water features; and
 - b. Predictive evaluation of contaminant transport based on potential releases to ground water; and

4. A spill plan that identifies equipment and/or structures that could fail, resulting in an impact. Spill plans shall include provisions for regular inspection, repair, and replacement of structures and equipment that could fail.

16.18D.060 Performance Standards – General Requirements

- A. Activities may only be permitted in a critical aquifer recharge area if the applicant can show that the proposed activity will not cause contaminants to enter the aquifer and that the proposed activity will not adversely affect the recharging of the aquifer.
- B. The proposed activity must comply with the water source protection requirements and recommendations of the U.S. Environmental Protection Agency, Washington State Department of Health, and the King County Health Department.
- C. The proposed activity must be designed and constructed in accordance with AMC 13.46.

16.18D.070 Performance Standards – Specific Uses

- A. Storage Tanks. All storage tanks proposed to be located in a critical aquifer recharge area must comply with local building code requirements and must conform to the following requirements:
 1. Underground Tanks. All new underground storage facilities proposed for use in the storage of hazardous substances or hazardous wastes shall be designed and constructed so as to:
 - a. Prevent releases due to corrosion or structural failure for the operational life of the tank;
 - b. Be protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substances; and
 - c. Use material in the construction or lining of the tank that is compatible with the substance to be stored.
 2. Aboveground Tanks. All new aboveground storage facilities proposed for use in the storage of hazardous substances or hazardous wastes shall be designed and constructed so as to:

- a. Not allow the release of a hazardous substance to the ground, ground waters, or surface waters;
- b. Have a primary containment area enclosing or underlying the tank or part thereof; and
- c. A secondary containment system either built into the tank structure or a dike system built outside the tank for all tanks.

B. Vehicle Repair and Servicing

1. Vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur.
2. No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the state Department of Ecology prior to commencement of the proposed activity.

C. Residential Use of Pesticides and Nutrients. Application of household pesticides, herbicides, and fertilizers shall not exceed times and rates specified on the packaging.

D. Use of Reclaimed Water for Surface Percolation or Direct Recharge. Water reuse projects for reclaimed water must be in accordance with the adopted water or sewer comprehensive plans that have been approved by the state departments of Ecology and Health.

1. Use of reclaimed water for surface percolation must meet the ground water recharge criteria given in RCW 90.46.080(1) and RCW 90.46.010(10). The Washington State Department of Ecology may establish additional discharge limits in accordance with RCW 90.46.080(2).
2. Direct injection must be in accordance with the standards developed by authority of RCW 90.46.042.

E. State and Federal Regulations. The uses listed below shall be conditioned as necessary to protect critical aquifer recharge areas in accordance with the applicable state and federal regulations.

Activity	Statute – Regulation - Guidance
Above Ground Storage Tanks	WAC 173-303-640
Animal Feedlots	WAC 173-216, WAC 173-220
Automobile Washers	WAC 173-216, Best Management Practices for Vehicle and Equipment Discharges (Washington Department of Ecology WQ-R-95-56)
Below Ground Storage Tanks	WAC 173-360
Chemical Treatment Storage and Disposal Facilities	WAC 173-303-182
Hazardous Waste Generator (e.g., <i>Boat Repair Shops, Biological Research Facility, Dry Cleaners, Furniture Stripping, Motor Vehicle Service Garages, Photographic Processing, Printing and Publishing Shops, Transfer Stations, etc.</i>)	WAC 173-303
Injection Wells	Federal 40 CFR Parts 144 and 146; WAC 173-218
Junk Yards and Salvage Yards	WAC 173-304, Best Management Practices to Prevent Stormwater Pollution at Vehicles Recycler Facilities (Washington State Department of Ecology 94-146)
Oil and Gas Drilling	WAC 332-12-450, WAC Chapter 173-218
On-Site Sewage Systems (Large Scale)	WAC 173-240

Activity	Statute – Regulation - Guidance
On-Site Sewage Systems (< 14,500 gal/day)	WAC 246-272, King County Health District Ordinances
Pesticide Storage and Use	RCW 15-54 RCW, RCW 17.21
Sawmills	WAC 173-303, WAC Chapter 173-304, Best Management Practices to Prevent Stormwater Pollution at Log Yards (Washington State Department of Ecology, 95-53)
Solid Waste Handling and Recycling Facilities	WAC 173-304
Surface Mining	WAC 332-18-015
Wastewater Application to Land Surface	WAC 173-216, WAC 173-200, Washington State Department of Ecology Land Application Guidelines, Best Management Practices for Irrigated Agriculture

16.18D.080 Uses Prohibited from Critical Aquifer Recharge Areas

The following activities and uses are prohibited in critical aquifer recharge areas:

- A. Landfills. Landfills, including hazardous or dangerous waste, municipal solid waste, special waste, woodwaste, and inert and demolition waste landfills;
- B. Underground Injection Wells. Class I, III, and IV wells and subclasses 5F01, 5D03, 5F04, 5W09, 5W10, 5W11, 5W31, 5X13, 5X14, 5X15, 5W20, 5X28, and 5N24 of Class V wells;
- C. Mining
 - 1. Metals and hard rock mining; and
 - 2. Sand and gravel mining, prohibited from critical aquifer recharge areas determined to be highly susceptible or vulnerable;

D. Wood Treatment Facilities. Wood treatment facilities that allow any portion of the treatment process to occur over permeable surfaces (both natural and manmade);

E. Storage, Processing, or Disposal of Radioactive Substances. Facilities that store, process, or dispose of radioactive substances; and

F. Other Prohibited Uses or Activities

1. Activities that would significantly reduce the recharge to aquifers currently or potentially used as a potable water source;
2. Activities that would significantly reduce the recharge to aquifers that are a source of significant baseflow to a regulated stream; and
3. Activities that are not connected to an available sanitary sewer system, prohibited from critical aquifer recharge areas associated with sole source aquifers.

Chapter 16.18E

Geologically Hazardous Areas

Designation, Classification, and Mapping

16.18E.010 Designation of Geologically Hazardous Areas

16.18E.020 Designation of Specific Hazard Areas

16.18E.030 Classification of Geologically Hazardous Areas

16.18E.040 Mapping of Geologically Hazardous Areas

Allowed Activities – Geologically Hazardous Areas

16.18E.050 Activities Allowed in Geologically Hazardous Areas

Critical Areas Report Requirements – Geologically Hazardous Areas

16.18E.060 Critical Area Report – Additional Requirements for Geologically Hazardous Areas

16.18E.070 Critical Area Report – Additional Requirements for Specific Hazards

Performance Standards – Geologically Hazardous Areas

16.18E.080 Performance Standards – General Requirements

16.18E.090 Performance Standards – Specific Standards

16.18E.010 Designation of Geologically Hazardous Areas

Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible development is sited in areas of significant hazard. Such incompatible development may not only place itself at risk, but also may increase the hazard to surrounding development and use. Areas susceptible to one or more of the following types of hazards shall be designated as a geologically hazardous area:

- A. Erosion hazard;
- B. Landslide hazard;
- C. Seismic hazard;
- D. Mine hazard;

E. Volcanic hazard; and

F. Other geological conditions, including, mass wasting, debris flows, rock falls, and differential settlement.

16.18E.020 Designation of Specific Hazard Areas

A. Erosion Hazard Areas. Erosion hazard areas are at least those areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "moderate to severe," "severe," or "very severe" rill and inter-rill erosion hazard.²³ Erosion hazard areas are also those areas impacted by shore land and/or stream bank erosion and those areas within a river's channel migration zone.

B. Landslide Hazard Areas. Landslide hazard areas are areas potentially subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Example of these may include, but are not limited to the following:

1. Areas of historic failures, such as:²⁴

- a. Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "severe" limitation for building site development;
- b. Those areas mapped by the Washington State Department of Ecology (*Coastal Zone Atlas*) or the Washington State Department of Natural Resources (slope stability mapping) as unstable (U or class 3), unstable old slides (UOS or class 4), or unstable recent slides (URS or class 5); or
- c. Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Washington State Department of Natural Resources;

2. Areas with all three of the following characteristics:²⁵

- a. Slopes steeper than fifteen percent (15%);

²³ See WAC 365-190-080(4)(c)

²⁴ See WAC 365-190-080(4)(d)(i)

²⁵ See WAC 365-190-080(4)(d)(ii)

- b. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
- c. Springs or ground water seepage.

3. Areas that have shown movement during the Holocene epoch (from ten thousand years ago to the present) or that are underlain or covered by mass wastage debris of that epoch;²⁶
4. Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;²⁷
5. Slopes having gradients steeper than eighty percent (80%) subject to rock fall during seismic shaking;²⁸
8. Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding;²⁹ and
9. Any area with a slope of forty percent (40%) or steeper and with a vertical relief of ten (10) or more feet except areas composed of consolidated rock. A slope is delineated by establishing its toe and top and is measured by averaging the inclination over at least ten (10) feet of vertical relief.³⁰

C. Seismic Hazard Areas. Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface faulting. One indicator of potential for future earthquake damage is a record of earthquake damage in the past. Ground shaking is the primary cause of earthquake damage in Washington. The strength of ground shaking is primarily affected by:³¹

1. The magnitude of an earthquake;
2. The distance from the source of an earthquake;
3. The type of thickness of geologic materials at the surface; and
4. The type of subsurface geologic structure.

²⁶ See WAC 365-190-080(4)(d)(iii)

²⁷ See WAC 365-190-080(4)(d)(iv)

²⁸ See WAC 365-190-080(4)(d)(v)

²⁹ See WAC 365-190-080(4)(d)(viii)

³⁰ See WAC 365-190-080(4)(d)(ix)

³¹ See WAC 365-190-080(4)(e)

Settlement and soil liquefaction conditions occur in areas underlain by cohesionless, loose, or soft-saturated soils of low density, typically in association with a shallow ground water table.

- D. Mine Hazard Areas. Mine hazard areas are those areas underlain by or affected by mine workings such as adits, gangways, tunnels, drifts, or airshafts, and those areas of probable sink holes, gas releases, or subsidence due to mine workings. Factors that should be considered include: proximity to development, depth from ground surface to the mine working, and geologic material.³²
- E. Volcanic Hazard Areas. Volcanic hazard areas are areas subject to pyroclastic flows, lava flows, debris avalanche, and inundation by debris flows, lahars, mudflows, or related flooding resulting from volcanic activity.³³
- G. Other Hazard Areas. Geologically hazardous areas shall also include areas determined by the Mayor or designee to be susceptible to other geological events including mass wasting, debris flows, rock falls, and differential settlement.

16.18E.050 Activities Allowed in Geologically Hazardous Areas

The following activities are allowed in geologically hazardous areas may not require submission of a critical area report for geologically hazardous areas:

- A. Erosion and Landslide Hazard Areas. Except as otherwise provided for in this chapter, only those activities approved and permitted consistent with an approved critical area report in accordance with this chapter shall be allowed in erosion or landslide hazard areas.
- B. Seismic Hazard Areas. The following activities are allowed within seismic hazard areas:
 - 1. Construction of new buildings with less than 2,500 square feet of floor area or roof area, whichever is greater, and which are not residential structures or used as places of employment or public assembly;
 - 2. Additions to existing single-story residences that are two hundred fifty (250) square feet or less; and
 - 3. Installation of fences.

³² See WAC 365-190-080(4)(f)(ii)

³³ See WAC 365-190-080(4)(f)(i)

C. Mine Hazard Areas. The following activities are allowed within mine hazard areas:

1. Construction of new buildings with less than 2,500 square feet of floor area or roof area, whichever is greater, and which are not residential structures or used as places of employment or public assembly;
2. Additions to existing residences that are two hundred fifty (250) square feet or less; and
3. Installation of fences.

D. Volcanic Hazard Areas. The following activities are allowed within volcanic hazard areas:

1. Construction of new buildings with less than 2,500 square feet of floor area or roof area, whichever is greater, and which are not residential structures or used as places of employment or public assembly;
2. Additions to existing residences that are two hundred fifty (250) square feet or less; and
3. Installation of fences.

E. Other Hazard Areas. The Mayor or designee may allow the following activities within other geologically hazardous areas, if the activity will not increase the risk of the hazard:

1. Construction of new buildings with less than 2,500 square feet of floor area or roof area, whichever is greater, and which are not residential structures or used as places of employment or public assembly;
2. Additions to existing residences that are two hundred fifty (250) square feet or less; and
3. Installation of fences.

16.18E.060 Critical Area Report – Additional Requirements for Geologically Hazardous Areas

A. Preparation by a Qualified Professional. A critical areas report for a geologically hazardous area shall be prepared by an engineer or geologist, licensed in the state of Washington, with experience analyzing geologic, hydrologic, and ground water flow systems, and who has experience preparing reports for the relevant type of hazard.

B. Area Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for geologically hazardous areas:

1. The project area of the proposed activity; and
2. All geologically hazardous areas within two hundred (200) feet of the project area or that have potential to be affected by the proposal;

C. Geological Hazards Assessment. A critical area report for a geologically hazardous area shall contain an assessment of geological hazards including the following site- and proposal-related information at a minimum:

1. Site and Construction Plans. The report shall include a copy of the site plans for the proposal showing:
 - a. The type and extent of geologic hazard areas, any other critical areas, and buffers on, adjacent to, within two hundred (200) feet of, or that are likely to impact the proposal;
 - b. Proposed development, including the location of existing and proposed structures, fill, storage of materials, and drainage facilities, with dimensions indicating distances to the floodplain, if available;
 - c. The topography, in two-foot contours, of the project area and all hazard areas addressed in the report; and
 - d. Clearing limits
2. Assessment of Geological Characteristics. The report shall include an assessment of the geologic characteristics of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties, and a review of the site history regarding landslides, erosion, and prior grading. Soils analysis shall be accomplished in accordance with accepted classification systems in use in the region. The assessment shall include, but not be limited to:
 - a. A description of the surface and subsurface geology, hydrology, soils, and vegetation found in the project area and in all hazard areas addressed in the report;
 - b. A detailed overview of the field investigations, published data, and references; data and conclusions from past assessments of the site; and site specific measurements, test, investigations, or studies that support the identification of geologically hazardous areas; and
 - c. A description of the vulnerability of the site to seismic and other geologic events;

3. Analysis of Proposal. The report shall contain a hazards analysis including a detailed description of the project, its relationship to the geologic hazard(s), and its potential impact upon the hazard area, the subject property, and affected adjacent properties; and
4. Minimum Buffer and Building Setback. The report shall make a recommendation for the minimum no-disturbance buffer and minimum building setback from any geologic hazard based upon the geotechnical analysis.

D. Incorporation of Previous Study. Where a valid critical areas report has been prepared within the last five (5) years for a specific site, and where the proposed land use activity and surrounding site conditions are unchanged, said report may be incorporated into the required critical area report. The applicant shall submit a hazards assessment detailing any changed environmental conditions associated with the site.

E. Mitigation of Long-Term Impacts. When hazard mitigation is required, the mitigation plan shall specifically address how the activity maintains or reduces the pre-existing level of risk to the site and adjacent properties on a long-term basis (equal to or exceeding the projected lifespan of the activity or occupation). Proposed mitigation techniques shall be considered to provide long-term hazard reduction only if they do not require regular maintenance or other actions to maintain their function. Mitigation may also be required to avoid any increase in risk above the pre-existing conditions following abandonment of the activity.

16.18E.070 Critical Area Report – Additional Technical Information Requirements for Specific Hazards

In addition to the general critical area report requirements of Section 16.18A.220 critical area reports for geologically hazardous areas must meet the requirements of this Section. Critical area reports for two or more types of critical areas must meet the report requirements for each relevant type of critical area.

A. Erosion and Landslide Hazard Areas. In addition to the basic critical area report requirements, the technical information for an erosion hazard or landslide hazard area shall include the following information at a minimum:

1. Site Plan. The critical area report shall include a copy of the site plan for the proposal showing:

- a. The height of slope, slope gradient, and cross-section of the project area;
 - b. The location of springs, seeps, or other surface expressions of ground water on or within two hundred (200) feet of the project area or that have potential to be affected by the proposal; and
 - c. The location and description of surface water runoff features;
2. Hazards Analysis. The hazards analysis component of the critical areas report shall specifically include:
- a. A description of the extent and type of vegetative cover;
 - b. A description of subsurface conditions based on data from site-specific explorations;
 - c. Descriptions of surface and ground water conditions, public and private sewage disposal systems, fills and excavations, and all structural improvements;
 - d. An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;
 - e. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a one hundred-year storm event;
 - f. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties.
 - g. A study of slope stability including an analysis of proposed cuts, fills, and other site grading;
 - h. Recommendations for building siting limitations; and
 - i. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion;
3. Geotechnical Engineering Report. The technical information for a project within a landslide hazard area shall include a geotechnical engineering report prepared by a licensed engineer that presents engineering recommendations for the following:
- a. Parameters for design of site improvements including appropriate foundations and retaining structures. These should include allowable load and resistance

capacities for bearing and lateral loads, installation considerations, and estimates of settlement performance;

b. Recommendations for drainage and subdrainage improvements;

c. Earthwork recommendations including clearing and site preparation criteria, fill placement and compaction criteria, temporary and permanent slope inclinations and protection, and temporary excavation support, if necessary; and

d. Mitigation of adverse site conditions including slope stabilization measures and seismically unstable soils, if appropriate;

4. Erosion and Sediment Control Plan. For any development proposal on a site containing an erosion hazard area, an erosion and sediment control plan shall be required. The erosion and sediment control plan shall be prepared in compliance with requirements set forth in AMC 13.46;

5. Drainage Plan. The technical information shall include a drainage plan for the collection, transport, treatment, discharge, and/or recycle of water prepared in accordance with AMC 13.46. The drainage plan should consider on-site septic system disposal volumes where the additional volume will affect the erosion or landslide hazard area;

6. Mitigation Plans. Hazard and environmental mitigation plans for erosion and landslide hazard areas shall include the location and methods of drainage, surface water management, locations and methods of erosion control, a vegetation management and/or replanting plan, and/or other means for maintaining long-term soil stability; and

7. Monitoring Surface Waters. If the Mayor or designee determines that there is a significant risk of damage to downstream receiving waters due to potential erosion from the site, based on the size of the project, the proximity to the receiving waters, or the sensitivity of the receiving waters, the technical information shall include a plan to monitor the surface water discharge from the site. The monitoring plan shall include a recommended schedule for submitting monitoring reports to the city.

B. Seismic Hazard Areas. In addition to the basic report requirements, a critical area report for a seismic hazard area shall also meet the following requirements:

1. The site map shall show all known and mapped faults within two hundred (200) feet of the project area or that have potential to be affected by the proposal.

2. The hazards analysis shall include a complete discussion of the potential impacts of seismic activity on the site (for example, forces generated and fault displacement).
3. A geotechnical engineering report shall evaluate the physical properties of the subsurface soils, especially the thickness of unconsolidated deposits and their liquefaction potential. If it is determined that the site is subject to liquefaction, mitigation measures appropriate to the scale of the development shall be recommended and implemented.

C. Mine Hazard Areas. In addition to the basic report requirements, a critical area report for a mine hazard critical area shall also meet the following requirements:

1. Site Plan. The site plan shall delineate the following found within two hundred (200) feet of or directly underlying the project area, or that have potential to be affected by the proposal:
 - a. The existence of mines, including all significant mine features, such as mine entries, portals, adits, mine shafts, air shafts, and timber shafts;
 - b. The location of any nearby mines that may impact or be affected by the proposed activities;
 - c. The location of any known sinkholes, significant surface depressions, trough subsidence features, coal mine spoil piles, and other mine-related surface features; and
 - d. The location of any prior site improvements that have been carried out to mitigate abandoned coal mine features; and
2. Hazards Analysis. The hazards analysis shall include a discussion of the potential for subsidence on the site and classify all mine hazards areas within two hundred (200) feet of the project area, or that have potential to be affected by the proposal, as either low, moderate, or severe. The hazards analysis shall include a mitigation plan containing recommendations for mitigation of the potential for future trough subsidence, as appropriate, for the specific proposed alteration and recommendations for additional study, reports, and development standards if warranted.

D. Volcanic Hazard Areas. In addition to the basic report requirements, a critical area report for a volcanic hazard area shall also meet the following requirements:

1. Site Plan. The site plan shall show all areas within two hundred (200) feet of the project area that have potential to be affected by pyroclastic flows, lahars, or mud and debris flows derived from volcanic events;
2. Hazards Analysis. The hazards analysis shall include a complete discussion of the potential impacts of volcanic activity on the site (for example, inundation by mud flows resulting from volcanic activity); and
3. Emergency Management Plan. The emergency management plan shall include plans for emergency building exit routes, site evacuation routes, emergency training, notification of local emergency management officials, and an emergency warning system.

E. Other Geologically Hazardous Areas. In addition to the basic requirements, the Mayor or designee may require additional technical information to be submitted when determined to be necessary to the review the proposed activity and the subject hazard. Additional technical information that may be required, includes, but is not limited to:

1. Site Plan. The site plan shall show all hazard areas located within two hundred (200) feet of the project area or that have potential to be affected by the proposal; and
2. Hazards Analysis. The hazards analysis shall include a complete discussion of the potential impacts of the hazard on the project area and of the proposal on the hazard.

16.18E.080 Performance Standards – General Requirements

A. Alterations of geologically hazardous areas or associated buffers may only occur for activities that:

1. Will not increase the threat of the geological hazard to adjacent properties beyond pre-development conditions;
2. Will not adversely impact other critical areas;
3. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than pre-development conditions; and
4. Are certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington.

B. Critical Facilities Prohibited. Critical facilities shall not be sited within geologically hazardous areas unless there is no other practical alternative.

16.18E.090 Performance Standards – Specific Hazards

A. Erosion and Landslide Hazard Areas. Activities on sites containing erosion or landslide hazards shall meet the standards of *Performance Standards – General Requirements* [Section 16.18E.080] and the specific following requirements:

1. Buffer Requirement. A buffer shall be established from all edges of landslide hazard areas. The size of the buffer shall be determined by the Mayor or designee to eliminate or minimize the risk of property damage, death, or injury resulting from landslides caused in whole or part by the development, based upon review of and concurrence with a critical area report prepared by a qualified professional.
 - a. Minimum Buffer. The minimum buffer shall be equal to the height of the slope or fifty (50) feet, whichever is greater.
 - b. Buffer Reduction. The buffer may be reduced to a minimum of ten (10) feet when a qualified professional demonstrates to the Mayor's satisfaction that the reduction will adequately protect the proposed development, adjacent developments, and uses and the subject critical area. This reduction may occur only if no other larger, overlapping critical area buffer (e.g., for a wetland or stream) is present.
 - c. Increased Buffer. The buffer may be increased where the Mayor or designee determines a larger buffer is necessary to prevent risk of damage to proposed and existing development;
2. Alterations. Alterations of an erosion or landslide hazard area and/or buffer may only occur for activities for which a hazards analysis is submitted and certifies that:
 - a. The development will not increase surface water discharge or sedimentation to adjacent properties beyond pre-development conditions;
 - b. The development will not decrease slope stability on adjacent properties; and
 - c. Such alterations will not adversely impact other critical areas;
3. Design Standards. Development within an erosion or landslide hazard area and/or buffer shall be designed to meet the following basic requirements

unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long-term slope stability while meeting all other provisions of this chapter. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic development design standards are:

- a. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Analysis of dynamic conditions shall be based on a minimum horizontal acceleration as established by the current version of the Uniform Building Code;
 - b. Structures and improvements shall be clustered to avoid geologically hazardous areas and other critical areas;
 - c. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;
 - d. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;
 - e. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;
 - f. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and
 - g. Development shall be designed to minimize impervious lot coverage;
4. **Vegetation Retention.** Unless otherwise provided or as part of an approved alteration, removal of vegetation from an erosion or landslide hazard area or related buffer shall be prohibited;
 5. **Seasonal Restriction.** Clearing shall be allowed only from May 1 to October 1 of each year provided that the city may extend or shorten the dry season on a case-by-case basis depending on actual weather conditions, except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved forest practice permit issued by the city or the Washington State Department of Natural Resources;

6. Utility Lines and Pipes. Utility lines and pipes shall be permitted in erosion and landslide hazard areas only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior;
7. Point Discharges. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:
 - a. Conveyed via continuous storm pipe downslope to a point where there are no erosion hazards areas downstream from the discharge;
 - b. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predeveloped state; or
 - c. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed buffer demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope;
8. Subdivisions. The division of land in landslide hazard areas and associated buffers is subject to the following:
 - a. Land that is located wholly within a landslide hazard area or its buffer may not be subdivided. Land that is located partially within a landslide hazard area or its buffer may be divided provided that each resulting lot has sufficient buildable area outside of, and will not affect, the landslide hazard or its buffer.
 - b. Access roads and utilities may be permitted within the landslide hazard area and associated buffers if the city determines that no other feasible alternative exists; and
9. Prohibited Development. On-site sewage disposal systems, including drain fields, shall be prohibited within erosion and landslide hazard areas and related buffers.

- B. Seismic Hazard Areas. Activities proposed to be located in seismic hazard areas shall meet the standards of *Performance Standards – General Requirements* [Section 16.18D.080].
- C. Mine Hazard Areas. Activities proposed to be located in mine hazard area shall meet the standards of *Performance Standards – General Requirements* [Section 16.18D.080] and the specific following requirements:
1. Alterations. Alterations of a mine hazard area and/or buffer are allowed, as follows:
 - a. All alterations are permitted within a mine hazard area with a low potential for subsidence;
 - b. Within a mine hazard area with a moderate potential for subsidence and at coal mine by-product stockpiles, all alterations are permitted subject to a mitigation plan to minimize risk of structural damage using appropriate criteria to evaluate the proposed use, as recommended in the hazard analysis; and
 - c. Within a mine hazard area with a severe potential for subsidence only those activities allowed in accordance with Section X.50.050 will be allowed.
 2. Subdivisions. The division of land in mine hazard areas and associated buffers is subject to the following:
 - a. Land that is located within two hundred (200) feet of a mine hazard area with a severe potential for subsidence may not be subdivided. Land that is located partially within a mine hazard area may be divided provided that each resulting lot has sufficient buildable area that is two hundred (200) feet away from the mine hazard area with a severe potential for subsidence. Land that is located within a mine hazard area with a low or moderate potential for subsidence may be subdivided.
 - b. Access roads and utilities may be permitted within two hundred (200) feet of a mine hazard area with a moderate or severe potential for subsidence if the city determines that no other feasible alternative exists.

3. Reclamation Activities. For all reclamation activities, including grading, filling, and stockpile removal, as-built drawings shall be submitted to the city in a format specified by the Mayor or designee.

D. Volcanic Hazard Areas. Activities on sites containing areas susceptible to inundation due to volcanic hazards shall require an evacuation and emergency management plan.

E. Other Hazard Areas. Activities on sites containing or adjacent to volcanic or other geologically hazardous areas shall meet the standards of *Performance Standards – General Requirements* [Section 16.18D.080].

16.18E.095 Penalties

Any person, party, firm, corporation, or other legal entity convicted of violating any of the provisions of this chapter shall be guilty of a misdemeanor.

1. Each day or portion of a day during which a violation of this chapter is committed or continued shall constitute a separate offense. Any development carried out contrary to the provisions of this chapter constitutes a public nuisance and may be enjoined as provided by the statutes of the state of Washington. The City may levy civil penalties against any person, party, firm, corporation, or other legal entity for violation of any of the provisions of this chapter. The civil penalty shall be assessed at a maximum rate of \$1000 per day per violation.
2. If the wetland affected cannot be restored, monies collected as penalties shall be deposited in a dedicated account for the preservation or restoration of landscape processes and functions in the watershed in which the affected wetland is located. The City may coordinate its preservation or restoration activities with other cities in the watershed to optimize the effectiveness of the restoration action.